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NEWER CONCEPTS IN SURGERY OF THE PANCREAS*

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THE past ten to fifteen years have seen rapid advances made in the surgical treatment of a number of the diseases to which the pancreas and its immediately adjacent structures are subject. Although solutions to the purely technical aspects of many of these heretofore perplexing clinical problems were proposed many years ago, their successful application has had to await the over-all improvements in pre- and postoperative care which have been more or less recently developed. These, of course, are well known. The hemorrhagic diathesis associated with jaundice can be controlled by vitamin K; the principles of water, sodium, and potassium replacement and maintenance are better understood and more successfully applied; the importance of preoperatively replacing depleted protein stores is accepted; the necessity of maintaining an adequate circulating blood volume by transfusion during a prolonged operative procedure is axiomatic; the control of infection by antimicrobials has made its distinctive contribution; and last but not least, the importance of employing a nonabsorbable suture material in all phases of pancreatic surgery is well appreciated.

Undoubtedly the most important single advance has been that of bringing under surgical treatment that group of cancers which, though not all primary in the pancreas, so frequently involve this organ that cure can only be effected by its removal, either partial or complete. For convenience these malignant neoplasms have been designated collectively as pancreaticoduodenal. They include carcinoma of the ampulla of Vater, primary duodenal cancer, carcinoma of the lower third of the common duct, and, of course, pancreatic cancer. The successful treatment of these tumors by radical pancreaticoduodenectomy represents a truly recent development in the field of major surgery.

I shall not dwell (at any great length) upon the preoperative diagnosis of tumors of the ampulla of Vater nor of those primary in the common duct or the duodenum. These lesions present signs and symptoms sufficiently definite to warrant an early tentative diagnosis and to indicate that prompt operation is imperative. The ampullary and common duct tumors, by occluding the common duct, give rise to obstructive jaundice. Ulcerocancer primary in the second and third portions of the duodenum, in addition to presenting definite symptoms closely resembling benign duodenal ulcer, should generally be recognized on X-ray examination employing the barium meal. Needless to state, any ulcer in the terminal 2 portions of the duodenum must be considered malignant until proved otherwise. Furthermore, in all 3 of these tumors additional diagnostic evidence is to be had from a simple laboratory test, that of demonstrating occult blood in the stools. Concerning the jaundice in these patients, two notes of warning are in order. First, it may be intermittent and thereby masquerade as that due to a common duct stone. As these tumors grow they may outdistance their blood supply and in sloughing away permit for a time the free passage of bile. Second, I would remind you that even today the differentiation between intra- and extrahepatic jaundice is not perfect. There is always a small group of jaundiced patients in whom it may be impossible to determine whether their icterus is due to common duct obstruction or primary hepatic disease. Under such conditions exploratory celiotomy should always be advised. In dealing with jaundice Dr. Whipple's adage is in order: "Do not study the jaundiced patient to death." Here in general, then, are 3 cancers in which there should be little excuse for not making a tentative diagnosis promptly and thereby allowing operation early enough to provide a very real hope of obtaining a cure.

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In turning, however, to cancer of the pancreas, an entirely different diagnostic problem presents itself; here the diagnosis is customarily so long delayed that these patients, with tragic frequency, reach the operating room in an advanced and inoperable stage of their disease. If there are not metastases in the liver there is at least regional lymph node involvement. Unquestionably many years of therapeutic hopelessness have served to dull our diagnostic imagination where pancreatic cancer is concerned. When this pessimism is coupled with a generous amount of ignorance concerning the life history of the disease, it is a wonder that the diagnosis is ever made prior to operation or to postmortem examination. Three examples will, I believe, serve to emphasize these points.

In 1941 Berk[1] interested himself in the reason the diagnosis of pancreatic cancer is made so late in the course of the disease. In this connection he sent a questionnaire to a large number of physicians in and about Philadelphia. "What," he asked, "is the presenting symptom of cancer of the pancreas?" Jaundice was given as the answer in an overwhelming majority of instances, yet in a detailed analysis of a large group of patients with proven pancreatic cancer Berk was able to show that only 21 per cent of these individuals initially consulted a physician because of jaundice. As a result of his studies Berk drew the following conclusions:

"1. Jaundice, if it appears at all . . ., is not a part of the presenting symptom-complex. It generally appears late.

2. Epigastric pain, radiating through to the back and worse at night, is the outstanding presenting complaint.

3. Loss of weight, which is rapid and associated with weakness, is the most commonly noted symptom."

At the New York Hospital I studied all of our cases in an effort to determine whether the delay could be attributed to the medical profession or to the patient. I was amazed to discover that in contradistinction to many other forms of cancer these patients consulted a physician relatively early in the course of their disease; apparently the epigastric pain is of sufficient intensity and the weight loss sufficiently rapid to force these people to seek attention early. In a review of some 60 case records of patients with proven carcinoma of the pancreas but without jaundice, the average delay between the onset of symptoms and first medical consultation amounted to a little over 3 weeks. From this time until operation there elapsed an average period of 3½ months!

As a third example I should like to read a case report which, though possibly extreme, is certainly not unique.

NYH, No. 357846. This patient, a woman aged 48, stated that she had always been well until 10 months prior to admission, at which time she began losing weight and experienced abdominal pain radiating through to her back; 9 months prior to admission, or 1 month after the onset of her symptoms, she consulted her own physician, who gave her "pain-killing tablets" of which she took as many as 25 a day; 7½ months prior to admission she was told in the outpatient department of a large voluntary hospital that she needed to gain weight; 7 months prior to admission she became dissatisfied with this clinic and went to another physician recommended to her by a friend; he performed an X-ray examination, telling her she had spastic colitis; 6 months prior to admission she returned to the above clinic, where a diagnosis of psychoneurosis was made; 5½ months prior to admission her own physician discovered sugar in her urine; and a lumbar tap and other tests led to a diagnosis of "inflammation of the nerves of her back"; 5 months prior to admission she applied to the outpatient department of another large hospital where numerous tests were performed and reported negative; 4 months prior to admission she was sent to a rest home where she was refused admission because "she was too ill"; 16 days prior to admission she was sent to another rest home connected with the New York Hospital, from which she was transferred directly here because "she was too ill." On admission she was studied completely and subjected to an exploratory celiotomy. The postoperative diagnosis was "inoperable carcinoma of the pancreas."

Again, as is true of the cancer problem as a whole, if patients with the disease are to be given a chance of cure, the diagnosis must be made earlier than it has been in the past. I would like to report that a pathognomonic test of this distressing disease has been developed. Unfortunately I cannot. Its early diagnosis must still depend upon clinical acumen.

The story of the development of radical pancreaticoduodenectomy as the operation is performed today is an interesting one and in itself epitomizes the development of modern surgical technics. The first recorded operation is that of Codivilla,[2] who in 1898 performed radical removal of the pancreas and duodenum much as the operation is executed today. The fact that this patient lived but 2 weeks should not detract from the brilliance of this, the earliest of these operations. Sporadically for the next 40 years the operation was tried, but so tremendous was the undertaking considered that it is little wonder that most surgeons were content either to excise locally small ampullary tumors or to consider more extensive lesions wholly inoperable. Even during this period the local operations which were performed were associated with a high mortality because of hemorrhage, biliary fistulae, and peritonitis.

It remained for Whipple,[3] discouraged by the fatal outcome of 1 of his patients in whom he performed a local excision, to arouse interest again in more radical surgery for these tumors. Stimulated by his success in removing large segments of pancreas for islet tumors and convinced that a large portion of the mortality was due to the attendant jaundice and to the use of catgut, Whipple proposed in 1937 the operation which, in spite of numerous modifications, is so justly designated "the Whipple procedure."

The original operation had to be performed in 2 stages to overcome the severe hemorrhagic diathesis encountered in the deeply jaundiced patient. The first stage involved, of course, one form or another of cholecystogastrostomy or enterostomy. With the introduction of vitamin K, however, and discouraged by the almost insurmountable number of adhesions occasioned by the first stage of the 2-stage operation, Whipple[4] performed the first 1-stage operation in 1940. Although in the past 8 years there have been proposed some 30 different variations of the original operation, its principles remain the same, namely, that of removal en bloc of the pancreas, the entire duodenum, the lower third of the common duct, and a generous segment of stomach.

The operation which I shall outline for you briefly is one which has been employed in some 40 cases operated upon at the New York Hospital since 1940.[5] Although I believe that it possesses a number of advantages over certain of the other procedures that have been reported, I cannot by any means insist that this is the only way in which the aims in view can be accomplished. As outlined, I can only say that its use has been met with reasonable success in the hands of some 6 or 7 different surgeons of our staff.

Division of the right gastric artery, the lower gastrohepatic ligament, and upper portion of the peritoneal reflection of the duodenum provides excellent exposure of the portal vein and superior aspect of the pancreas. Since many of the pancreaticoduodenal tumors tend to extend early to this area the question of operability may occasionally be decided by this exposure alone.

By continuing the division of the peritoneal reflection over the duodenum as far caudad as possible, the loose areolar space between the pancreas and the deeper structures may be entered readily. At this point the presence or absence of periaortic nodes involved in metastatic cancer may be determined. If such lymphatic involvement or direct extension is identified the procedure should be abandoned at this stage.

Indication as to whether or not the superior mesenteric vein is involved by direct extension of the cancer may be obtained by exploring this vessel from below. Although this can be accomplished by entering the lesser omental sac, access to this area can sometimes be more readily accomplished by dividing the base of the mesocolon transversely. Careful dissection is then helpful in delineating the inferior extension of the tumor.

Should the preceding 3 maneuvers have indicated that the tumor is operable, the first definitive step in resection must be taken, namely, division of the stomach and pancreas. This is accomplished at about the level of the midportion of the stomach. Dissection is then carried toward the right side of the patient, exposing the superior mesenteric vein as it lies in the groove made by the head and uncinate process of the pancreas.

If the superior mesenteric vein can be freed successfully from the pancreas and its tumor, the resection is then completed by dividing the inferior pancreaticoduodenal artery, the jejunum, and the various structures constituting Treitz's ligament. This permits the terminal duodenum and proximal jejunum to be delivered easily into the upper abdomen.

The following procedures are then carried out: reconstruction of the gastrointestinal tract; retrocolic end-to-end pancreaticojejunostomy and end-to-side choledochojejunostomy and antecolic gastrojejunostomy.

A recent survey of the literature on this subject provides for review some 2 to 3 hundred cases of one type or another of these operations performed for ampullary, pancreatic, or duodenal tumors. I shall not go into a detailed tabulation of these results, since they are adequately recorded elsewhere by Child,[6] Waugh,[7] Cattell,[8] Neibling et al,[9] and others. I shall, however, emphasize what seem to me to be the most significant results.

1. Although the cumulative figures derived from all the reported cases indicate an operative mortality of 25 to 30 per cent, an analysis of the operations performed during the past 2 to 3 years indicates that in the future this figure should be stabilized around 10 per cent, an entirely acceptable figure.[10]

2. In general, the results in the ampullary and duodenal tumors have been good, with a very reasonable 2-, 3-, and even 5-year survival rate.

3. In primary pancreatic cancer, however, the results of radical pancreaticoduodenectomy have indeed been poor. Rarely do these patients survive more than a few months beyond that which can be expected from purely palliative operations such as cholecystenterostomy for relief of the associated jaundice. So discouraging have been the results that recently Cattell[8] has proposed that total pancreatectomy be performed for these malignant neoplasms. Furthermore, Cattell believes that, if total pancreatectomy does not improve the salvage rate, the operation should be abandoned entirely for pancreatic cancer. This

pessimism, however, is not shared by others working in this field. Every so often a patient survives several years, and, after all, no patient will ever be cured if the operation is abandoned. The more optimistic emphasize that it is not the operation which is at fault but the late date at which the diagnosis is made.

4. Obviously radical pancreaticoduodenectomy is no longer in the experimental stage. Although today there are, of course, a few unsettled questions such as whether or not the operation should be performed in 1 or 2 stages, and whether or not the portal vein can be resected, it is an accepted surgical procedure. By its use certain otherwise incurable cancers can be treated.

The next phase of pancreatic disease which has received renewed attention recently is that of acute pancreatitis. This fulminating process, first reported as a recognizable clinical entity by Reginald Fitz[11] in 1890, became a classic in medical literature in 1940 when T. M. Furber[12] described 3 personally attended cases as follows:

> "I well remember a man at Sydney Hospital who, while waiting in Dr. Hamilton Marshall's outpatient department, fell from his seat, laboring under what Lord Moynihan has so aptly called 'illimitable agony.' It was evident, even to such mole-eyed students as we were, that the unfortunate old man was stricken unto death, as he quickly became a dreadful, livid, ashen hue, and writhed and groaned in a calamity of pain, fighting for breath and calling on our Maker for help in what was truly his last extremity. Some three days later he died, as was discovered at autopsy, of pancreatic necrosis.
>
> "Another picture which comes to mind is that of a decent, middle-aged widow who lived virtuously alone, with gallstones, which for years, in spite of advice, she had harbored and, I think, cherished. Soon after dinner one night she was overwhelmed by an abdominal cataclysm. When I saw her a few hours later she was sitting up in the middle of a big double bed, slowly rocking herself back and forth and gently moaning, but not taking the slightest notice of the bewildered females who clucked and fluttered about her, nor answering direct questions, for her sensorium was apparently saturated by the tremendous discharge of afferent stimuli from her abdomen. Knowing that she had gallstones, I guessed that she had acute pancreatitis, and advised her immediate removal to the hospital; but while arrangements were being made her tempestuous daughter burst in on us like a southerly gale and whisked the unfortunate old lady to her own home, where the poor soul perished of what was proved, at the coroner's autopsy, to be pancreatic necrosis.
>
> "Fortune seemed to smile on a sprightly, brisk, young bachelor when he won the lottery. He at once gave up his uninteresting and comparatively unremunerative toil for what was, for him, the more congenial task of helping the brewery proprietors to issue a few more bonus shares. He succeeded so well in this, no doubt, laudable crusade that for a month or more he was seldom sober and thought he was having a wonderful time, till suddenly the Grim Reaper breathed on his pancreas and it died, and so did its owner within three days. He, unlike the other two, lay as still as a mouse or as a patient with a ruptured peptic ulcer. The metabolic revolution had caused such profound shock that, as Professor Wilson used to say, 'It was patent to the meanest intelligence' that the poor fellow was destined soon to find out whether the story of Saint Peter and the Digger had any truth in it. Resuscitory treatment did not reclaim him and he died without operation. Autopsy revealed hemorrhagic pancreatitis."

Acute pancreatitis has long been a most distressing problem, and it is little wonder that considerable attention has been focused upon its etiology and treatment. The most significant recent advance that has been made is recognition of the fact that in the majority of instances the acute process will subside without progressing to the hemorrhagic or necrotic stage of the disease. This, together with the fact that establishment of the diagnosis is greatly facilitated by determination of blood serum amylase levels, means that it is no longer necessary to operate immediately upon the majority of these patients. Recently there have appeared several articles, particularly those of Whipple,[4] Morton,[13] and Elman,[14] in which the authors maintain that if operation is withheld early in the course of acute edematous pancreatitis the mortality is reduced from the neighborhood of 35 to 50 per cent to about 10 to 15 per cent or lower. Whipple reports a series of 46 unoperated patients with a mortality of 15 per cent; Morton insists that the Somogyi test[15] for elevated serum amylase provides a means whereby acute edematous pancreatitis can be recognized with great accuracy. Not operating upon such patients, Morton believes, accounts for the fact that in his last 29 patients there was no mortality.

Acute hemorrhagic or necrotic pancreatitis is quite another story, however, for Morton here points out that even today the usual high mortality is found; of 18 cases with pancreatic necrosis who were operated upon there were 10 deaths, or a mortality of 55 per cent. All 9 patients with this severe form of the disease who were not operated upon died.

At the New York Hospital we have continued to subject most of these patients to early operation largely because the serum amylase test has not proved as reliable in our hands as it apparently has in other clinics. As I reviewed our experience with some 40 patients suffering from either edematous or hemorrhagic pancreatitis, I was left with the impression that the problem is not as simple as one would gather from studying available reports. Not only was the serum amylase not elevated as frequently as it should have been, but in our series there were 23 patients with acute edematous pancreatitis cared for without a death in spite of the fact that 14 were operated upon. Of 12 patients with hemorrhagic or necrotic pancreatitis, 9 died, 4 with operation and 5 without.

In attempting to rationalize these results I was forced to the conclusion that there must be other unrecognized but significant factors at work. The most logical one would seem to be that in recent years all of these patients have early received large doses of chemotherapeutic agents. Perhaps it is these which have prevented, by controlling infection, acute edematous pancreatitis from progressing to the obviously more fatal hemorrhagic or necrotic form of the disease. No matter what the eventual solution of these perplexing problems proves to be, I think it reasonable to point out that, in spite of operation, the mortality will probably remain low as long as the disease does not progress to its hemorrhagic form. Hemorrhagic, suppurative, and necrotic pancreatitis will undoubtedly continue to carry its usual high mortality whether the patients are operated upon or not. How to prevent acute edematous pancreatitis from progressing to acute hemorrhagic pancreatitis will, I believe, prove eventually to be the primary problem; whether antimicrobial therapy can be relied upon to accomplish this remains to be proved.

At the moment I think there is one most significant conclusion that can be drawn, namely, the importance of not operating upon any of these patients if there is evidence of the shock state being present. On conservative and supportive treatment, including massive doses of antimicrobials, the patient with acute edematous pancreatitis will presumably improve sufficiently to make it apparent that an emergency operation is not necessary. At best acute pancreatitis in either of its forms continues today to be a difficult and confusing problem, demanding thought, skill, and keen surgical judgment. No one as yet has produced either a diagnostic or therapeutic panacea, although Elman's program[14] appears to be the most logical course to follow at the present time. He urges that if the diagnosis can be established upon the basis of an elevated serum amylase, operation be withheld on those who promptly show evidence of improving. Those whose clinical status fails to improve on supportive therapy or actually deteriorates should be operated upon and adequate drainage of the areas of pancreatic necrosis established across the lesser omental sac.

For years patients with one form or another of chronic pancreatitis have plagued alike both private practitioners and clinics. These miserable people were destined to shop from doctor to doctor without obtaining relief and all too frequently becoming more and more firmly entrenched in morphine addiction. As a result of renewed interest in this difficult problem most of these individuals can now be offered at least relief from their symptoms if not a cure of their disease. In its earlier stages before fibrosis and calcification have appeared, correction of biliary tract disease, if it exists, can be expected to relieve a certain number of these patients. Division of the sphincter of Oddi, as advocated by Doubilet,[16] holds considerable promise of effecting a cure in those cases in which failure has followed removal of a diseased gall-bladder and on occasion associated common-duct stones. After the disease has progressed to fibrosis and calcification, either pancreatectomy as reported by Whipple[17] or sympathectomy as advocated by Ray[18] and others[19, 20] may be employed. Although successful in relieving pain in chronic pancreatitis it is unlikely that radical resection will be accepted with any great enthusiasm for it seems unjustified to subject a patient with nonmalignant disease to an operative mortality of somewhere between 10 and 25 per cent. Undoubtedly splanchnicectomy will prove a far more popular method of treatment. Whether or not this must be done bilaterally has not yet been fully proved. Occasionally the pain can be satisfactorily relieved by sympathectomy on the right side alone, but several such patients have returned with sufficient symptoms to warrant completion of the denervation. Ray and Console[18] have reported 5 patients operated upon at the New York Hospital in whom bilateral splanchnicectomy has been followed by complete relief of symptoms. This surgical maneuver, originally suggested and performed in slightly different fashion by Mallet-Guy,[19] unquestionably rids these chronic invalids of their most distressing symptom, the severe pain, but obviously it does not control the frequently associated diabetes and nutritional disturbances. It is needless to point out that before such a patient is subjected to sympathectomy the pancreas must be explored for evidence of a malignant neoplasm or a common duct compromised by pancreatic fibrosis. These, of course, if demonstrated should be dealt with by means of appropriate surgical measures. It has been justly pointed out that such a complete denervation might tend to confuse the diagnosis should one of these patients develop acute pancreatitis or a pancreatic abscess early or late in the postsympathectomy period. It is felt, however, that even though pain is absent, there should be other signs and symptoms upon which the diagnosis of such an acute process can be made.

Cysts of the pancreas constitute a fascinating chapter in abdominal surgery and one in which the time-relationships are of first importance. A patient who gives a short history of an epigastric mass rapidly increasing in size may be suspected of harboring a retention or pseudocyst. Particularly is this justified if the appearance of the mass was preceded by an episode of acute upper abdominal pain or by trauma. One fact of particular importance in the treatment of pseudocysts is found in their lack of an epithelial lining. This means, of course, that these can be either marsupialized or simply drained by a tube without producing a pancreatic fistula. Of great help in identifying these as pseudocysts or simple retention cysts at the operating table is that they are characteristically unilocular.

Proliferative cysts or cystadenomata, on the other hand, are quite another problem. These are typically multilocular, and the various compartments always have a definite epithelial lining. This fact, of course, accounts for the persistent and distressing fistulae which are apt to follow any form of exteriorization. These tumor masses should be radically excised provided this is at all possible without compromising the vital anatomic structures to which they are all too frequently densely adherent. Attempts at removal, however, should be abandoned and anastomosis performed to an adjacent loop of jejunum if there appears to be any definite risk of damaging the superior or inferior mesenteric vessels. They should, of course, not be exteriorized if this can possibly be avoided. Another point well to remember is that occasionally these tumors may undergo malignant degeneration. If this can be proved by biopsy the only hope for the patient's cure obviously lies in radical removal. Of the recent reviews of this subject those of Poer and Stephenson,[21] Jemerin and Samuels,[22] and Meyer et al[23] are of particular interest.

I shall devote the remainder of my time to one specific group of tumors, those of the islands of Langerhans. In so confining myself, I realize that I shall omit a number of interesting neoplasms of the pancreas, such as hemangioma, endothelioma, liposarcoma, and chondroma. But these lesions are so rare that they really constitute surgical and pathologic curiosities of no very great significance in the over-all picture of pancreatic neoplasia.

Before considering functioning islet cell tumors in detail, permit me a few generalities. All neoplasms of the endocrine systems hold particularly broad interests. The internist is fascinated by the diagnostic niceties involved. The physiologist and biochemist are intrigued profitably by the state of hyperfunction, a condition so difficult to produce in the experimental animal. The surgeon is gratified by the spectacular cure which follows the successful extirpation of one of these tumors. Altogether they are most satisfactory to everyone concerned, save possibly the patient. And yet even he usually enters into the spirit of the situation and has as good a time as anyone, particularly if he is cured.

The understanding of functioning islet-cell tumors, their diagnosis, their treatment, and their physiology certainly represents one of the outstanding recent surgical advances. The successful removal of one of these tumors by Dr. Mayo in 1927 has been followed by over 200 case reports of patients with these interesting lesions. It would be impossible in the time available to go into a detailed review of all of the various aspects of the pathology, symptomatology, and treatment of these lesions. I shall have to content myself, therefore, with a few pertinent observations.

In the first place, practically all of these tumors are benign adenomata, only a few functioning islet-cell cancers having been reported. In the second place, the hypoglycemia produced by these tumors must be carefully differentiated from that due to disorders of the liver, the adrenals, the pituitary, the thyroid, and the thalamus. To this end Whipple,[4] as a result of his intensive studies on patients, has established his triad, without which a diagnosis of islet-cell adenoma is not justified. Its features are (1) attacks of a central nervous system disorder, motor, vasomotor or psychic, coming on during the fasting state or after strenuous exercise; (2) fasting blood-sugar levels of 50 mg. per 100 c.c. or less, and mostly less; and (3) immediate recovery from these attacks on the administration of glucose by mouth or by vein.

By insisting that these criteria be met before operation is considered Whipple was able to find tumors in 19 out of 22 patients, whereas, if other less rigid diagnostic standards are employed, tumors have been demonstrated in only 16 out of 46 patients.[13]

Once a patient is found fulfilling the above diagnostic requirements, operation should not long be delayed. So many of these people, even those with functioning islet-cell cancers, in discovering for themselves that a high carbohydrate intake is essential for their well-being, gain weight enormously. This obesity in itself contributes materially to the difficulties of the operation as well as to increasing the mortality. The frequent hypoglycemic attacks are considered to be instrumental in the cerebral deterioration which is not unusual in these patients, and one author in writing about islet adenomata reports on 2 patients who had to be institutionalized even after having been successfully operated upon. Further, there is always the chance that the tumor may be malignant.

In dealing with these tumors it would be convenient indeed were the complexities restricted to their diagnostic phase, but hardly is this the case. Identification of the small reddish-purple lesions at the operating table may, because they are usually not over a centimeter or so in diameter, be extremely difficult. The entire gland must be so mobilized that no portion of it escapes thorough examination. Because the lesions may be multiple, the finding of one should not mislead an unwary operator; he must convince himself that the one he has found is the only one present. The most illuminating summary of the operative problems encountered in dealing with these tumors is that of the Mayo Clinic as reported by Lopez-Kruger and his associates.[24] Basing their report upon 44 patients with 52 tumors, these authors conclude that the surgeon can expect to find at operation from 50 to 60 per cent of the tumors. At any given operation resection of the tail of the pancreas will remove 50 per cent of these tumors; of the body, an additional 20 per cent; and of the head, another 20 to 30 per cent. About 1 to 2 per cent will be located in aberrant pancreatic tissue. Even multiple operations are, of course, justified in these patients, since no form of medical treatment known today is of any avail.

Early in the study of these patients there appeared a small group with the typical triad but in whom no tumor could be found. This led to the concept of functional hyperinsulinism or, as others preferred to believe, of islet-cell hyperplasia. These cases led to the adoption of subtotal pancreatectomy as the treatment of choice. At the moment the status of this syndrome is undecided. For instance, David[25] in 1940 reported that anything short of removal of at least two thirds of the gland was unsuccessful in relieving the patient of his symptoms. Of the 17 patients in whom practically the entire pancreas was removed there was 1 death, 11 were made free of symptoms, but 4 were unimproved.

Before leaving this phase of pancreatic surgery it might be well to mention briefly that islet-cell tumors present a number of inconsistencies. For instance, size bears no relationship to the degree of function manifest clinically. Also, the symptoms may bear little relationship to the degree of hypoglycemia, either from day to day in the same patient or from patient to patient. In one instance a patient may have a convulsion with a fasting blood sugar of 45 mg. per 100 c.c. The next day he may appear relatively normal with a value of 20 to 30 mg. Finally, by some mechanism not at all clear, the thyroid may become overactive in hyperinsulinism. Because of this, every patient suspected of having one of these tumors must have a basal metabolic rate determination. If it is plus 15 or above, the patient should be prepared for operation with iodine and thiouracil.

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ENVIRONMENTAL FACTORS IN THE ETIOLOGY OF CANCER*

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PREVENTION and therapy are the two main avenues that lead to the control of disease. At the present time the fight against cancer in man is carried on chiefly through the therapeutic approach. The principal efforts, both clinical and experimental, expended during recent years have been directed at finding a specific cure or cures and at improving available therapeutic methods. Closely related to this work are the numerous investigations aimed at the development of a reliable diagnostic test for cancer, because the prospects of all therapeutic measures are directly dependent on the discovery of cancer during its early stage.

The basic rationale for the various therapeutic and diagnostic efforts appears to be the belief or postulate that cancer represents a disease complex whose different manifestations possess fundamentally identical properties, although they may exhibit variations in minor details. This concept reflects the rather widely held attitude that the general nature of the biologic qualities characterizing the cancerization process and the cancer proper set these phenomena apart from other disease complexes, such as infectious diseases or degenerative vascular diseases, whose individual components display a considerable degree of basic diversity. It is likely that the prospects of controlling cancer by the diagnostic-therapeutic approach depend to a definite extent on whether the concept of cancer as a disease entity is correct or to what degree it is valid.

Contrasting with this large scale attack on cancer through the therapeutic route are the comparatively small and scattered efforts to combat environmental hazards known to cause cancer by rational preventive measures. This obvious gap in a well-balanced campaign against cancer is in part due to the fact that the etiology of more than 99 per cent of cancers is unknown and that therefore the development of effective preventive methods and their general use is not yet practical. The institution of intelligent preventive measures depends on adequate information of the etiology and epidemiology of cancer. The acquisition of such information, however, has been impaired in the past by two factors:

1. The causative mechanism active in the production of human cancer appears to be a process usually taking many years. It is therefore generally very difficult to trace the causation of the cancer which appears at the end of the long trail of intermediate reactions.

2. Scientists for many years have been fascinated by etiologic concepts that so far proved to be rather sterile as far as the majority of human cancers are concerned. The miasmatic theory of chronic irritation still enjoys wide acceptance in medical circles, although the evidence on which it is based is of doubtful value. Not only has experimental cancer research proven beyond any doubt that cancer development is not invariably bound to coëxisting chronic inflammation, but observations in the clinical field also demonstrate that some of the most prominent and frequent chronic irritative processes occur in organs that show an exceptionally low incidence of cancer. For instance, cancer is a relatively rare complication of chronic sinusitis, chronic salpingitis,

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chronic urethritis, chronic crural ulcers, and hemorrhoids. Chronic industrial dermatitis, unless caused by certain specific agents, does not show any unusual liability to cancerous sequelae. It seems that wherever chronic irritative processes are statistically related to cancer, they rather obscure the presence of the specific carcinogenic factors whose activity they may enhance.

Inheritance or hereditary predisposition was and still is considered by many competent investigators an important direct or contributory cause of cancer in man. Although the hereditary theory receives some support by the occurrence of a few relatively rare and unusual cancers with obvious hereditary causal relations, there is at present little valid evidence available indicating that hereditary influences are active in the causation of the great majority of human cancers or that their effect exceeds that exerted by heredity on susceptibility to many other diseases. In fact, observations made in connection with several forms of occupational cancer, such as those caused by aromatic amines and pitch, indicate that workers exposed to these agents for a sufficient length of time and with adequate intensity ultimately develop cancers and that therefore heredity does not play a primary role in their causation.

Although the concept of the causal significance of postnatal tissue displacements can be considered obsolete, there remains a continued adherence to the theory of embryonic cellular misplacements as the cause of human cancers. In support of this hypothesis reference is made to cancers developing from nevi and in teratomas. Apart from the fact that not the slightest evidence exists that the majority of human cancers actually originate from such embryonic cell nests misplaced into an abnormal internal environment, experimental observations show quite clearly that the high multiplicity of cancer foci in tissues exposed to known carcinogenic agents practically excludes the embryonic cell misplacement theory as a useful instrument for the study of the causes of cancer in man.

ENVIRONMENTAL CANCERIGENESIS

After having cleared away some of the fog that still surrounds the important problem of the etiology of human cancer, it seems appropriate to point out that almost all known cancer-producing agents are of exogenous, environmental origin. It is felt that this fact is not the result of mere coincidence but that it is of real significance and that it provides one of the most hopeful and promising aspects of current cancer research and cancer control. The first one of the appreciable number of known environmental carcinogens, namely soot, was found some 150 years ago. Although its practical importance in the original form of chimney soot has waned considerably since that time, the large scale production and industrial use of commercial types of soots of chiefly unknown and noninvestigated carcinogenic properties may open a new chapter in the carcinogenic importance of soot. The majority of agents comprising the environmental carcinogenic spectrum were discovered during the last 50 to 75 years, when the new industrial era had gotten into full swing and sufficient time had elapsed for the usually delayed appearance of the cancerous reactions to the new industrial agents to become manifest.

Paralleling the increasingly rapid pace of industrial development and of diversification of industrial processes and products, there were discovered during this period a progressively mounting number and variety of exogenous occupational carcinogens affecting different tissues and organs. In addition, epidemiologic studies on cancer undertaken during recent decades revealed that cancer development is related to environmental factors other than those associated with occupational activity. Definite or suggestive evidence of such relationships was obtained in connection with certain habits, customs, parasitic infections, climates, soil and atmospheric conditions, medicines, cosmetics, dietary imbalances and food contaminations. The environmental cancerigenic spectrum that has evolved during the last 50 years contains physical and chemical agents that differ in their properties in many respects as widely as the members composing the pathogenic microbiologic spectrum. Human cancers as judged by the diversity of their known causes do not seem to be fundamentally at variance from other groups of diseases, such as infectious diseases, especially those giving rise to chronic granulomatous reactions.

Despite the wealth of data indicating carcinogenesis in man from crude mixtures of chemicals and from contact with or action of even more nondescript factors, only 3 unadulterated agents have thus far been proved beyond any doubt to be carcinogenic for man. These are penetrating radiation, beta-naphthylamine and arsenic. However, there are many additional chemicals and other less defined agents for which properties carcinogenic to man are almost as firmly established and others which can be strongly suspected. The relatively small number of well-defined and recognized carcinogenic agents active in man contrasts sharply to the several hundred synthetic substances that have been shown to cause cancers in various organs and different animal species. Among these are numerous polycyclic aromatic hydrocarbons, various azo compounds, certain stilbenes, styrenes, and compounds related to 2-aminofluorene, as well as a few others, such as urethane, estrogens, chloroform, carbon tetrachloride, selenium, and beryllium. Some of these compounds originally were developed for purposes of practical uses, such as solvents, pesticides and medicines, while others have been employed for some time in industry, foods, cosmetics and similar products of manufacture and consumption or are chemically closely related to products of our endogenous metabolism, such as hormones, bile acids, and vitamins. It is likely, therefore, that with further investigation additions will be made to the environmental cancerigenic spectrum which will increase its range as well as the variety of its component parts.

The following list presenting the various recognized or suspected environmental carcinogens provides not only a summary of the existing knowledge but also an intimation of possible future developments.

CLASSIFICATION OF ENVIRONMENTAL CARCINOGENS

I. Physical Agents
  1. Ultraviolet rays (solar rays, ultraviolet lamps, welding arc)
  2. Roentgen rays
  3. Rays from radioactive substances (alpha, beta and gamma rays; corpuscular and electronic rays)
  4. Cosmic rays?
  5. Thermic rays?

II. Chemical Agents
  A. Inorganic Chemicals
    1. Arsenic (arsenicals)
    2. Chromium (chromates)
    3. Nickel (nickel carbonyl)
    4. Beryllium?
    5. Selenium?
    6. Asbestos?
  B. Organic Chemicals
    a. Aliphatic chemicals
      1. Chlorinated aliphatic hydrocarbons?
      2. Isopropyl oil—isopropyl compounds?
      3. Carbamate derivatives?
    b. Aromatic Chemicals
      1. Benzol
      2. Aromatic amines (beta-naphthylamine, benzidine, aniline?, antioxidants?)
      3. Aromatic azo compounds—dyes?, pharmaceuticals?
      4. Polycyclic hydrocarbons—solvents, pesticides, pharmaceuticals, industrial chemicals?
      5. Products of incomplete combustion of coal (tar, pitch, asphalt,

creosote oil, anthracene oil, soot) and carbonaceous matter (lignite, wood, tobacco, natural and illuminating gas, lamp black, oil black, gas black, bone black, carbon black?)

6. Products of incomplete combustion, retorting and fractionation of oil shale (crude shale oil, crude paraffin oil; processed shale oils-lubricants, fuel)
7. Products of incomplete combustion, retorting and fractionation of petroleum (fuel and lubricating oils, crude paraffin oils, asphalt, tar, coke) and crude petroleum?
8. Native asphalts and asphaltites (gilsonite, glance pitch, grahamite?); ozokerite?, native mineral wax?; ichthyol?

III. Parasites
   1. *Schistosoma hematobium*, (*Schistosoma mansoni*?, *Schistosoma japonicum*?) (bladder, liver, intestine)
   2. *Clonorchis sinensis*? (liver?)
   3. *Opisthorchis felineus*? (liver?)

IV. Dietary Imbalances
   1. Iodine deficiency (thyroid)
   2. Vitamin B complex deficiency (nasopharynx)
   3. Vitamin B complex and protein deficiency (liver)

V. Vegetable Products
   1. Betel nut-tobacco-lime-buyo leaf-chewing (mouth, lip, cheek)
   2. Tobacco-lime (Khaini) chewing (lower lip)
   3. Tobacco dust? (lung?)
   4. Ergot? (peripheral nerves?)

From the evidence available it appears probable that most of the chemical carcinogens are direct primary cancer-producing agents, i.e., they or their metabolites elicit the cancerous changes, wherever contact with them is most severe and prolonged. It is likely that the physical carcinogens do not cause cancer by direct actinic mutation, but rather by producing through the impact of the radiating energy on the chemical constituents of the tissues endogenous substances having carcinogenic properties. Such an indirect cancerigenic mechanism seems also to be active in eliciting cancers in the liver, bladder and intestine by parasitic action or in the liver by hepatoxic chemicals or dietary imbalances. Under such circumstances the carcinogen may be either the direct product of a metabolic derangement in the affected tissues, or it may be a primary normal or abnormal endogenous or exogenous carcinogen that is not properly metabolized because of the functional disturbances of the liver or other organs elicited by the causative exogenous agents.

ENVIRONMENTAL CANCER EPIDEMIOLOGY

Even a brief and superficial analysis of the various recognized and suspected environmental carcinogens reveals the fact that contact with these agents is widespread and takes on different forms. This fact alone, however, does not indicate that all persons becoming exposed to these agents are destined to develop cancer in some organ. Present evidence demonstrates that the conditions of exposure must be proper and adequate for such an outcome. Since the actual demonstration of the existence of such a relationship still is usually difficult or even impossible, or is not attempted or thought of, an undetermined proportion of the environmental cancer cases remains in the so-called spontaneous group.

This situation is distinctly regrettable, since it is obvious from the nature of the known and suspected carcinogens that they may elicit cancers not only in members of an appreciable number of occupational groups, being both producers and consumers or users of these agents, but also in members of the general public. The general population comes in contact with these agents when they are contained in consumer goods of various types or when they pollute the human environment (air, water and soil), for instance, by being contained in industrial wastes.

A few citations of actual conditions may help to illustrate this spread of carcinogenic contacts by tracing them from the original producer through the various successive types of consumers to the general public. A cancerigenic arsenic hazard exists for the miners who mine arsenic-containing ores (copper, silver, zinc, lead). The hazard extends from there to the workers in smelters, where the bulk of the white arsenic is obtained as a byproduct of metal ore smelting. From there arsenic gets to the consuming industries which use it in the production of pesticides, weed-killers, glass, lead-base alloys, dyestuffs, cattle and sheep dips, wood preservatives, poison bait, chemical warfare gases, and in the Thylox purification of industrial gases. The list of occupations in which these and other arsenicals are handled is extensive. Since arsenicals at some smelters are freely released into the atmosphere or remain in the slag heaps, there exists the danger of a contamination of drinking water supplies from these sources causing the development of an endemic arsenicism. A similar result may ensue from the liberal spraying and dusting of vineyards, orchards and cotton fields with arsenical insecticides. Finally arsenicals are administered to man for therapeutic purposes or may be consumed with contaminated foodstuffs, liquor, tobacco and candies. Cancers of the skin and possibly also of the lung have been traced to most of these various exposures to arsenic.

A similar centrifugal spread of exposure may be noted for the tarry products obtained by the incomplete combustion of coal. Workers employed in gas works and coke ovens where the bulk of the industrially important tar is produced may sustain skin contact with this material or may inhale hot tar fumes and develop cancer of the skin or of the lung, depending on the type of exposure. The tar is then fractionated into tar oils, creosote, pitch and anthracene oil in addition to lighter and more volatile products, which, with the exception of benzol, are usually noncarcinogenic. These fractionation products are either used as they are for a great number of purposes or are processed and transformed into well-defined chemical compounds, forming together with petroleum derivatives the main source material for the modern organic chemical and pharmaceutic industry. Since the entire list of products entering into the manufacture of tar, pitch, asphalt, creosote oil, anthracene oil, mineral waxes and related materials is very long, only a selection of the most common uses can be given. These are enamels, paints, inks, varnishes, roof-coating material, cement, mortar, putty, shingles, tiles, roofing paper, water-proofed paper, felt, textile, nets, cords and panels, acoustic blocks, compositions and felts, calking material, wood preservative, road construction material, electric appliance and wire insulation material, casting molds, battery boxes, cork composition, ditch, dike and jetty protectives, leather composition, linoleum, foundry cores, friction tape, pipe-coating, tree-surgery paste, lubricants, cable-splicing compounds, clay pigeons, fuel, floor treads, optical polishing base, knobs, mirror backing, phonograph records, frothing oils, flotation oils, depilatory, pesticides, cattle spray, and medicinal and cosmetic ointments and lotions. It is quite obvious even from the limited enumeration of uses of tar, pitch and related substances, that contact with these agents is not only widespread in industry, but extends to a definite degree to the general public for reasons of consumption and general environment. It may suffice to mention that petroleum derivatives enjoy a similar range of distribution as those cited for tar, although it seems that most of them fortunately are of a lower degree of carcinogenic potency.

Although we have become accustomed recently to connect occupational radioactive hazards with the production of atomic energy, there are additional radioactive cancer hazards of considerable professional and industrial nature. Perhaps the most well-known are those encountered by the personnel of radiologic laboratories in research establishments, hospitals and industries, such as foundries and shipyards. The manufacture, application and removal of radioactive luminous dial paint employed many hundreds of persons during the late war and is still an operation in which a considerable number of workers are engaged. Radioactive hazards have been introduced lately into the pharmaceutic and other industries through the use of radioactive isotopes employed in the production and application of tracer substances. Radioactive substances are moreover handled in the production of radiotubes, electrostatic eliminators, gas mantles, radium type vacuum gauges and nickel polonium alloy spark plugs. In this connection it is interesting to note that, according to Williams, a considerable amount of the tremendous quantities of radium used in luminous paint is unaccounted for, since markers, dials and rope carrying the radioactive material have occasionally found their way into the hands of persons not qualified to dispose of them properly (C. R. Williams: Radiation hazards in industry. J. Indust. Hyg. & Toxicol., 1948, **30,** 294). While thus, on the one hand, a certain degree of environmental radioactive hazards may have come to parts of the population not generally expected to sustain such exposures, there remains the probability that the cancer hazard from contact with radioactive dust and gases starts with the mining of the ore, if the experiences made with lung cancers in miners of such ores in Czechoslovakia and Germany should prove to be of general application.

The available evidence justifies the statement, that given a carcinogenic environmental agent and the proper type of exposure, the development of cancer in exposed individuals is mainly a matter of time or latent period. Although the wisdom of this lesson of modern occupational cancer research may as yet not always be appreciated properly, the inexorable facts are bound to provide in the long run convincing proof of its validity.

There are a few more dogmas that have been developed from the studies of occupational cancers which appear to be important to physicians.

1. Occupational cancers appear at sites where the contact with the carcinogenic agent is most intense and prolonged.

2. The type of contact in turn depends on the type of exposure, i.e., skin exposure, inhalation, ingestion or parenteral introduction, the physical status of the agent, and the chemical properties, metabolism, excretion or deposition of the carcinogenic agent.

For instance, skin contact with tar, pitch, mineral oil and similar agents causes cancer of the skin, as does ingestion of arsenicals which in part are stored in the skin and its appendages. Inhalation of hot tar fumes or of arsenical dust may elicit cancer of the lung. The same result may ensue after the inhalation of asbestos and chromate dust, and nickel carbonyl and isopropyl oil vapors, whereby the vapor hazards in addition give rise to cancers of the nasal sinuses. Cancer of the skin follows direct contact of this organ with radioactive material; upon ingestion of radioactive matter osteogenic sarcomas develop; prolonged, intermittent mild general body irradiation seems to cause leukemia; and inhalation of radioactive gases and dust is suspected to result in cancer of the lung.

Exposure conditions appear to control to a large extent the sex ratio of environmental cancers. Whenever both sexes are equally exposed to a particular cancerigenic agent, there is a tendency toward equalization of the sex incidence of cancer involving a certain site. For instance, bladder cancer due to aromatic amines so far has been observed in males only, while osteogenic sarcoma caused by ingestion of radioactive material has appeared so far in females only. Cancer of the skin in mulespinners was restricted for many years to males. With the introduction of female workers into this trade during recent decades, cancer of the vulva has been noted in several female mulespinners. Whereas the usual male to female sex ratio of lung cancer is 5 to 1, it is about 2.5 to 1 for asbestosis cancer of the lung.

Since environmental cancers and cancerigenic agents do not possess any properties by which they can be distinguished from the so-called spontaneous cancer, the recognition of the environmental nature of a cancer is based on circumstantial evidence. The bulk of this evidence is of statistical and epidemiologic nature. An increased total cancer morbidity and mortality with a shift in the distribution of cancers as to sites as well as an excessive incidence of cancer of a certain organ or organs within a restricted population group should arouse the suspicion of an environmental cause of these cancers. This interpretation receives support if there is a demonstrable shift of the cancers to younger age groups and of the male-female sex ratio of cancer. Finally, the demonstration of a common type of exposure aids in establishing the environmental character of the cancers observed. However, with this type of reasoning, cancers of "spontaneous" nature are unavoidably included among the environmental cancers occurring in the surveyed population group. Some of these spontaneous cancers can be eliminated from the occupational group by evaluating properly the length of the exposure period and the intensity and type of contact to the cancerigenic agent in relation to the site and latent period of the cancer scrutinized. For others it may be possible, on the other hand, to demonstrate manifestations preceding or accompanying the cancerous process and characterizing the etiologic agent. Some of such manifestations are of precancerous nature and form a part of the cancerization process such as hyperkeratosis, warts, papillomas, adenomas, leukemoid reactions, chronic periostitis, and other hyperplastic lesions, while others provide merely symptomatic telltale footprints of the cancerigenic agents and may be called pericancerous in character. Such lesions are melanoderma and leukoderma, chronic dermatitis, telangiectases, hemorrhages, comedones, boils, and atrophies and other phenomena of a degenerative nature. It is not unusual that some members of the surveyed population group that are not affected by cancers may display some or all of these precancerous and pericancerous reactions which compose the environmental cancer pattern and which thereby furnish confirmatory evidence as to the environmental nature of the cancerous reactions observed in this group. The discovery and recognition of environmental cancers is thus based on a complex type of evidence which in some instances forms a mosaic of a definite design, the environmental cancer pattern. Familiarity of the medical profession with these symptomatic characteristics and peculiarities of environmental cancers is important for the discovery of environmental cancer hazards. However, such warning signals of the impending advent of environmental cancer are not present in many environmental cancers. Often, there may be scarcely any preliminary symptoms of toxic nature preceding the development of cancer. In fact, in many instances the general health may remain good for a long time even in the presence of an environmental or occupational cancer.

It is obvious that an effective control of occupational cancers is relatively readily obtained, if the cancerigenic agent is known and the conditions of contact can be eliminated or effectively reduced. Unfortunately, this approach is often not practical whenever carcinogenic material enters consumer industries and the products bought by the general public. In such instances it becomes necessary to substitute suitable noncarcinogenic agents for the ones having cancer-producing properties. Such replacements have been made in some industries and industrial products such as benzol, arsenic and naphthylamine. This process, however, could be much more extensively applied by spreading information on environmental cancer through properly conducted educational efforts with industrial management and health agencies, including the medical profession. The Cancerigenic Studies Section has been created in the National Cancer Institute for the investigation of environmental and occupational cancer hazards, including their causes and their prevention. However, considering the potential scope of the problem, this section can serve mainly as a spearhead for such efforts and as a center of information. For an effective and large scale attack on the exogenous

(*Continued on page 59*)

CHEMOTHERAPY OF CANCER[*][†]

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THE adequate discussion of the chemotherapy of cancer in 15 minutes is obviously an impossibility.[1,2,3] It is my intention here only to survey rapidly the field of agents that are of use in treating advanced cancer and to give references to the more extensive treatises on each subject. Since to date none of these agents produces cures, it is obvious that if there is any chance of surgical extirpation or complete obliteration of the tumor by radiation, such possibly curative procedures should be tried before turning to chemotherapy.

In general, the agents used in the chemotherapy of cancer may be divided into three groups: (1) agents changing the environment of hormonally dependent cells, i.e., androgens[4,5,6] and estrogens[4,5,7–11]; (2) agents acting as general cell poisons, i.e., arsenic,[12,13] benzol,[14,15] urethane,[16,17,18] and nitrogen mustards[19–36]; (3) agents acting as metabolic antagonists to substances essential for cell growth, i.e., folic acid antagonists.[3,37–44]

In group 1 the first example is the androgen, testosterone propionate. This is generally of value in the management of carcinoma of the breast in women before the menopause and in those within 10 years after the menopause. When administered intramuscularly in doses of 100 milligrams 3 times weekly, it achieves objective improvement in about 20 per cent of patients with either osseous or soft part metastases. Toxic manifestations include hirsutism, increased libido, dangerous sodium retention with edema and sometimes cardiac failure, and hypercalcemia with consequent renal damage.

The estrogens, on the other hand, are of value in the patient with carcinoma of the breast who is more than 10 years postmenopausal. In these patients regression of metastases to soft tissues may be expected in as high as 40 to 50 per cent. Estrogen therapy is generally considered to be contraindicated in younger patients, in whom it may cause acceleration instead of inhibition of the disease. This type of drug is also of considerable value in metastatic carcinoma of the prostate, and relief of pain, regression of lesions, and prolongation of life have been reported in this disease. Oral doses of diethylstilbestrol, 5 milligrams 3 times daily, are used in treating carcinoma of the breast and 1 to 5 milligrams daily in treating prostatic cancer. Toxic symptoms of uterine bleeding in the female, swollen painful breasts in the male, sodium retention with edema, and hypercalcemia with consequent kidney damage may be seen with this form of therapy.

Among the group of general cell poisons, arsenic was the first to be proven useful. This, in the form of Fowler's solution, will bring about remissions in chronic myelocytic leukemia. Dosage is usually started at 5 minims 3 times daily by mouth and gradually increased to the point of tolerance. Toxic symptoms of nausea and vomiting are sometimes severe, and diarrhea may occur.

Benzol, 1 to 4 grams daily, has been used similarly by some European workers for the control of this disease. Here dangerous toxicity is manifested by hepatic damage and aplasia of the marrow with consequent anemia, leukopenia, and thrombocytopenia.

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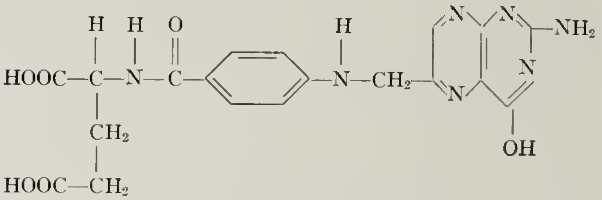
Urethane, ethyl carbamate, is of value also in chronic myelocytic leukemia and to a lesser degree in the chronic lymphocytic type and in multiple myeloma. In the dosage of 2 to 4 grams daily by mouth, beneficial effects are usually seen after about 4 weeks of therapy. After improvement occurs, maintenance therapy may be continued with lower doses. Toxic symptoms of nausea and vomiting may be so bothersome as to force discontinuance of therapy, and some patients may also complain of drowsiness. Hepatic damage and aplasia of the bone marrow have been reported as rare manifestations of toxicity.

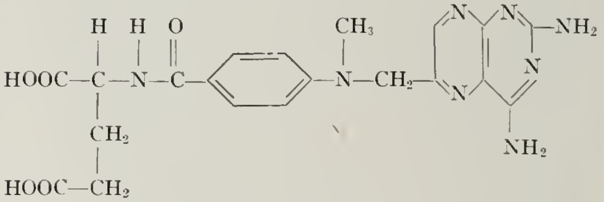
The nitrogen mustards are vesicant agents whose use in chemotherapy originated from the studies carried on under the auspices of the Chemical Warfare Service during the War. The agent most generally used, methyl bis (beta-chloroethyl) amine, also known as HN2, is given intravenously in doses of 0.1 mg. per kilo of body weight daily for 4 doses. Unless the nitrogen mustard tolerance of a given patient is known, further therapy with this drug should usually not be given for at least 2 to 3 weeks. HN2 is particularly useful in the treatment of the generalized forms of Hodgkin's disease and lymphosarcoma, chronic myelocytic leukemia, inoperable carcinoma of the lung, and possibly also in polycythemia vera. Sporadic beneficial results have been reported in a miscellaneous group of tumors.

Toxic manifestations of nausea and vomiting coming on about 2 hours after injection are very frequent, and occasionally severe leukopenia and thrombocytopenia are seen. It is to be emphasized, however, that a moderate leukopenia is not dangerous and that a case of Hodgkin's disease which appears to be resistant to therapy has not had a fair trial of the drug unless a leukopenia of between 1,000 and 2,000 leukocytes has been achieved.

The conventional agents such as radiation, arsenic, benzol, urethane and the nitrogen mustards, which offer a definite palliation in the chronic forms of leukemia, are without beneficial effects on acute leukemia. The introduction of the 4-amino antagonists of folic acid in the clinical treatment of acute leukemia by Farber and further clinical trials by others have provided agents which have produced relatively complete clinical and hematologic remissions in approximately 20 to 30 per cent of the patients. Since this is a definite improvement over previous therapy of acute leukemia, I would like to spend the remainder of my time discussing this in somewhat more detail.



Pteroylglutamic Acid (PGA)



4-Amino-N^{10}-methyl-pteroylglutamic Acid (*a*-methopterin)

Figure 1

A metabolic antagonist or antimetabolite is a substance which differs only slightly in chemical structure from the metabolite with which it competes (4-amino-N^{10}-methyl-pteroylglutamic acid vs. pteroylglutamic acid [PGA] [figure 1]). 4-Amino-N^{10}-methyl-PGA apparently gets into the enzyme systems in which PGA normally is utilized, remains there unutilized, and as the proverbial "dog-in-the-manger" denies access to the normal metabolite. Thus, the antagonist causes a relative deficiency of PGA in both normal and leukemic cells. It would appear that in some cases of leukemia the leukemic cells are more sensitive to this relative deficiency of PGA than are the normal cells of the body.

Although there are several PGA antagonists which may be used in the treatment of leukemia, I shall discuss only one compound, 4-amino-N^{10}-methyl-PGA, also known as *a*-methopterin. The usual daily dose of this drug in a 5-year-old child is 5 milligrams given intramuscularly in saline solution or by mouth dissolved in water or orange juice. The average dose for adults may be increased up to 10 to 15 milligrams daily. During therapy, daily determination of white blood cell count, hemoglobin, and differential leukocyte counts should be done, and the sternal marrow should be examined weekly. Sudden drops in leukocyte count are an indication to withhold therapy temporarily. The therapeutic régime used at Memorial Hospital in the treatment of children with acute leukemia calls for the administration of the drug until either a complete remission occurs, as evidence by clinical signs and by the blood and marrow differentials, or until such manifestations of toxicity as stomatitis, diarrhea, or gastrointestinal bleeding appear. If a complete remission does not occur in the patients showing manifestations of toxicity, therapy is resumed at a slightly lower dose in 1 to 2 weeks when symptoms have subsided, and is continued until signs of a remission or further toxicity appear. Although remissions usually have occurred within a month after the start of therapy, we have seen some patients in whom remissions were not seen until treatment had been given for 3 to 4 months. Once a complete remission has been produced, maintenance therapy may be given or treatment may be temporarily stopped. We prefer the latter course. When off therapy, the patient should be examined at least every 2 weeks, at which time the usual interval history, physical examination, and determination of hemoglobin, white blood cell count, and peripheral blood and bone marrow differentials are done. When the intermittent type of therapy is used, particular emphasis is laid on the sternal aspiration, since it is by this technic that the first evidence of a relapse can usually be detected. Thus, treatment can be resumed and the relapse avoided often without clinical evidences of an exacerbation of the disease ever being noted in the patient.

In our experience complete remissions have been observed chiefly in children and young adults. Most of the patients with leukemia who responded were considered as having the stem-cell type, but a few could be classified as of the acute lymphoblastic and myeloblastic variety. In our series, none of the patients with acute monocytic leukemia was benefited. Once a remission is obtained in a given patient, further remissions are the rule rather than the exception. Eventually, however, these responses become less and less satisfactory, and in due time it is to be expected that the patient will become resistant to all forms of therapy. It has not been our experience that other PGA antagonists are better than *a*-methopterin once the resistant stage of the disease has been reached, and, although remissions have been produced by many other derivatives, there is no real evidence that they possess any definite advantage over *a*-methopterin at any stage of the disease. The antimetabolite therapy of acute leukemia is not in any way a cure for the disease, but in my estimation it does represent a distinct step forward in the palliative treatment.

In summary, there are several groups of drugs which differ widely in their chemical structure and in their mode of action, and, although they are not curative, they are useful adjuncts in the treatment of cancer.

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THE USE AND ABUSE OF ESTROGENS*

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AN immense amount of experimental work[1] done in the chemical and biologic laboratories has contributed greatly to our knowledge of these hormones. The varying response to estrogens in different species tends to be confusing and has led to much speculation regarding their use in human beings. Further clarification in the clinical application is to be desired.

Before the present century the concept of the function of the ovary was general and rather vague. Soon after the discovery that the thyroid gland had an endocrine function it was suspected that the ovary might also serve a similar purpose. All sorts of extracts and preparations of the whole ovary or part of the ovary were used empirically. Excellent results from their use were proclaimed. After the cyclic changes in the ovaries and the uterus were correlated, it was noted that the follicles and corpus luteum contained active material which was roughly demonstrated by impure extracts. The real basis of modern estrogenic therapy, however, was the isolation and purification of theelin, in 1923, by Allen and Doisy. Since then many estrogenic substances have been isolated which may be obtained in pure crystalline form.

At times the terminology is confusing. Estrogen is a generic term for estrus-producing compounds. Natural estrogens are obtained from body fluids or tissues. The common commercial sources are pregnancy urine and placenta. Chemically all of the natural estrogens are steroids.

An entirely different chemical group was more or less accidentally discovered by Dodds and his co-workers to have estrogenic activity. While searching for carcinogenic agents they found that many of the stilbene compounds may be prepared synthetically and hence are known as synthetic estrogens. By comparison of the different members of the group some are carcinogenic and estrogenic while others do not combine their activities. Although stilbestrol has been the best known of this group, several others are potent and have less unpleasant side-reactions.

Numerous commercial preparations of both natural and synthetic estrogens are available. They may be in pure form or in combinations, as propionates and benzoates, which may modify their action. Injections in oil are used to prolong the period of absorption; aqueous suspensions act more rapidly. Implantation of pellets may prolong the absorption for weeks. Tablets for oral administration may be coated to delay their absorption until they have passed through the stomach. Perlingual absorption is sometimes preferred. Inunctions are commercially exploited. A wide choice of materials is available. The simplest procedure for the patient and the physician is oral administration. Since all the estrogens may be obtained in pure crystals, it is desirable to speak of dosage in terms of milligrams because units are variable.

The purpose of estrogenic therapy is to substitute for a real or assumed deficiency of estrogens. Primarily the function of estrogens is to promote growth.

The uterus grows rapidly during intrauterine life because of the hormones of the mother. After birth there is an involution of the uterus, and within 2 weeks postnatally the uterus is the size of that seen, on the average, in an 11-year-old girl. During fetal life and the first decade the ovaries are refractory to pituitary hormones, and the level of ovarian hormone secretion is minimal during this period.

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The development of the uterus during adolescence is very rapid. In about 13 per cent the uterus is adult size at 11 and in 95 per cent at 19. This rapid growth is due to the estrogenic action of the ovaries. This period of growth persists for several months before cyclic changes appear. In many instances the uterus is refractory to ovarian hormones, and, if it remains refractory, an infantile uterus persists into adult life. This is important to recognize, since infertility of this origin is not susceptible to hormone treatment.

At sexual maturity the uterus exhibits 2 types of growth: the cyclic growth, largely under the control of the ovarian hormones, and the growth during pregnancy, which is due to a number of stimuli. Estrogens promote the cyclic growth of the uterus. The vascularity of the whole organ is increased and the endometrium proliferates. Without endometrial proliferation the progestational change due to progesterone cannot take place. The actions of estrogens and progesterone are synergistic. There is some intrinsic factor in the endometrium which permits synergistic action. That this intrinsic factor is not known presents a clinical problem of considerable importance which we can only hope will soon be solved.

The growth-promoting effect of estrogens on the vaginal mucosa was utilized several years ago in the treatment of gonorrheal vaginitis in little girls. Administration by mouth and by vaginal suppositories gave prompt relief. Antibiotics have now replaced estrogen in the therapy of this disease.

Senile vaginitis is characterized by infection of the thin vaginal mucosa which occurs after the menopause. The delicate mucosa is easily injured, and the invasion of bacteria through the abrasion results in an inflammation. The administration of estrogens systemically and locally promotes growth of the vaginal mucosa and facilitates healing of the lesion. Changes in the skin of the labia leading to eczema and kraurosis are not appreciably affected by estrogens.

The growth-promoting effect of estrogens together with progesterone is responsible for the development of the mammary gland. The earliest evidence of this stimulation is seen in some newborn babies. "Witch's milk" is a response to the hormones received from the mother. The enlargement of the breasts soon recedes, since the supply of hormones is withdrawn at birth. Development of the breasts a few months before the first menstruation of puberty is outward evidence of estrogen secretion. Mammary development continues during adolescence, reaching a peak during pregnancy.

The uterus, vagina and breasts vary widely in their susceptibility at different times and under different conditions to the growth-promoting effect of estrogen. These variations should be considered when therapeutic effects are anticipated. If the estrogens stimulate growth, are they carcinogenic? In certain species and strains the answer is yes for many of the estrogens. In the human, evidence indicates that a cancer may grow more rapidly in response to estrogens in some instances, whereas in others its growth is retarded temporarily. Whether therapeutic doses can cause a malignant change remains equivocal, but with the large amount of material used daily very few cancers can be attributed to this cause.

In order to appreciate the role of estrogens during normal cycles it is necessary to consider the relation of ovarian and pituitary secretions (gonadotropins) which stimulate the ovary to secrete estrogens and progesterone. As the amount of estrogens increases, the pituitary gland is inhibited. This interplay of secretions of the two glands is manifested by alternate rise and fall of secretions. The balance is maintained at different levels under normal conditions as in menstrual cycles and in pregnancy. When an imbalance is detected it would be ideal to be able to substitute therapeutically for the pituitary or ovarian deficiency as indicated. Although pure estrogens and progesterone are available, we are not yet so fortunate with the pituitary preparations.

An illustration of how this imbalance may be used clinically is seen in the inhibition of lactation. During pregnancy the mammary gland is developed by the estrogens and progesterone. At parturition these hormones are reduced to a low level and the pituitary gland secretes lactogenic hormone which initiates lactation. By the administration of estrogens the engorgement of the breasts and lactation may be inhibited. For this purpose diethylstilbestrol in doses of 1 to 5 milligrams 3 times a day for 3 days may be used. Any of the other estrogens are equally effective. In this manner the activity of the pituitary gland is diminished.

Amenorrhea presents a more complex problem. If examination discloses that the uterus and secondary sex characters have developed, it may be assumed that the glands have functioned sufficiently to promote that development and that the present disturbance is due to an imbalance of the glands already present. If the uterus is small, the use of estrogens is indicated to see whether that organ will respond. The main factor may be lack of receptivity of the uterus. If the patient is in a state of poor nutrition or in poor general health, the uterus may be refractory to estrogens until the nutritional and other disturbances are corrected. Recourse to hormone therapy should be reserved until the patient is treated as a whole. The causes of amenorrhea are varied, and among the causes emotional factors rank high. Attention to the physical, psychologic and environmental factors is far more fruitful than estrogenic therapy.

Specific estrogenic therapy for amenorrhea is generally overrated. A few patients are found who deserve such treatment. In that case one may use any of the estrogens equivalent to 5 milligrams of diethylstilbestrol by mouth daily for 20 days. Withdrawal bleeding may occur in 5 or 6 days. The process may be repeated for 3 or 4 months in the hope that the uterus will be sufficiently stimulated to continue the cycles in response to the ovarian function. Progesterone in doses of 10 milligrams daily may be added on the fourteenth day in the hope of reproducing an endometrium more characteristic of the normal cycle.

Although functional bleeding is an important gynecologic problem, it does not yield readily to estrogenic therapy. In fact, much of this type of bleeding is due to too much estrogen. An excess of estrogen renders the endometrium unresponsive to progesterone and causes a hyperplasia. Continued administration of estrogen causes uterine enlargement for a while and then ceases to be effective. This may explain some apparently good results obtained by treating hyperplasia with estrogens. There are better methods of treating hyperplasia.

Premenstrual tension is associated with salt and fluid retention. During the latter half of the menstrual cycle there is a weight gain and sometimes slight edema. Symptoms of nervousness, irritability and headaches are often noted. All of the symptoms including the edema disappear promptly with the onset of menstruation. There is no hormonal treatment for this condition, but symptoms may be alleviated by restricting the salt and fluid intake. Ammonium chloride is also useful to help remove the edema. Another manifestation of the salt and fluid retention is occasionally seen during the estrogenic treatment of metastatic carcinoma of the prostate. Patients with a small cardiac reserve have been decompensated during such treatment because of the increased salt and fluid retention.

Empirical treatment of the menopause has consumed more estrogens than all other uses of these hormones. The abuse is two-fold: first, aiding and abetting women in the belief that all the ills at this time of life are due to the menopause; second, giving a false sense of security that the hormones will cure all of their ailments. Consequently, much valuable time may be lost when self-diagnosis and self-treatment delay detection of a serious condition the symptoms of which have been incorrectly attributed to the menopause. Since the estrogens are available without prescription a physician's advice is not sought. Perhaps the woman has a vague idea that she is suffering from the menopause and demands menopausal treatment from her physician. If he should acquiesce he has helped to confirm her suspicion and she leaves the office convinced that she is a menopausal sufferer.

Since the introduction of hormonal treatment for the menopause an increasing number of patients are seen on account of bleeding. There are many causes of bleeding at the menopause and later. Some of these are serious. To overlook an organic condition because the slight bleeding is passed off lightly as "due to hormones" might be disastrous. On the other hand, operations have been done needlessly because it has been assumed that the hormonal bleeding was from an organic cause. In the investigation of bleeding it is necessary to inquire whether there has been any previous medication. If the nature of the medicine cannot be determined, the patient may be asked to refrain from all medication until possible hormonal stimulation can be excluded.

The menopause is not a disease. It is a transition from one phase of life to another. Just as the first menstruation is the most conspicuous event of puberty, so the cessation of menstruation is the most striking event of the menopause. Aging of the ovary is not to be confused with aging of the individual. Many of the symptoms attributed to the menopause are a part of the process of aging.

The most common objective symptom related to the menopause is the hot flush. Probably about 80 per cent of menopausal women experience one or more flushes. This is the one symptom for which estrogens are useful. At least 50 per cent of women will be satisfactorily relieved by the use of sedatives. Phenobarbital, $\frac{1}{4}$ grain (0.016 Gm.) 3 times a day is an average dose. In case this does not relieve, stilbestrol may be added or used separately. To avoid bleeding, the smallest effective dose may and should be used. It is desirable to use less than 1 milligram a day. Oral medication is always preferable. Any of the estrogens may be used, and there is little difference in their effectiveness or tolerance.

Emotional factors play an important role in the symptoms attributed to the menopause. The physical and emotional manifestations are so closely intertwined that it is not possible to separate them sharply. Treatment, therefore, must recognize both. It is not opportune here to go into the emotional factors extensively. It may be mentioned that most of the emotional factors are due to fear of something. Some of the common fears are those of old age, of loss of sexual activity, of becoming coarse and masculine, of becoming fat, of ill health, of developing cancer, and of encountering domestic problems. The basis of fear is ignorance. Time given to a sympathetic understanding of all the patient's problems is well spent. Presenting the facts about the menopause to a patient by her physician before she reaches that period is excellent preventive medicine. Such authoritative statements will go far toward counteracting the vague rumors she may hear from enthusiastic but unreliable sources.

The hope that there would be many clinical uses for the estrogens was justified by clear-cut animal experiments. Too often the clinical results have been measured by the enthusiasm of the patient and her physician. Critical analysis has narrowed the field. Estrogens still have a place if used judiciously.

SIGMUND FREUD AND PSYCHOANALYSIS

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WHEN Freud was a very young man looking about for his life's work he read an essay by Goethe which decided him for his future profession. Goethe's essay was on nature, her infinite varieties and beautiful mysteries, and young Freud was so impressed that he decided to study medicine.

For a man of high purpose and unbounded enthusiasm the medical studies of those days were dry, utterly uninteresting, full of long-winded theories and with little of practical importance. The only science that actually interested Freud was psychology and the functions of the nervous system. In 1881 he took his degree in medicine.

Dr. Freud did not enter practice; he was far more interested in research. For a while he worked in the physiologic laboratory of Ernst Brucke, where he carried on minute studies on the nervous system of fishes. For a short time he was content, but he was not earning a decent living at this sort of thing. He became an interne at the General Hospital where he received more money for his efforts. By 1883 he had attained the status of junior physician at the General Hospital and also an assistant at the Institute of Cerebral Anatomy. He was rapidly acquiring a very comprehensive understanding not only of the nervous system of the lower animals but of the human body as well.

From neurology his interest turned to psychiatry. At that time psychiatry was in a rather primitive state. It was a futile science; it described diseases of the mind, but it did not treat them. Freud was bitterly disappointed. He confided his disappointment to Brucke who obtained a traveling fellowship for him. It was this fellowship which started Freud on his way to the formulation of the science of psychoanalysis and to immortality.

The greatest specialist in nervous diseases at that time was Jean Martin Charcot, and his stamping ground was Paris. So to Paris young Dr. Freud went in his quest for knowledge about how the human mind works. Charcot was particularly noted for his studies on hysteria. Charcot demonstrated that hysteria was a disease not of the body but of the mind.

In Charcot's clinic Freud saw many cases of hysterical paralysis and other types of neuroses. He made copious notes and recorded his observations minutely and carefully. Slowly he laid the foundations for a new science. From the autumn of 1885 to the summer of 1886 Freud studied in Charcot's clinic. On his way back to Vienna he stopped at Berlin for a few months to work in the children's clinic of Max Kassowitz.

When he returned to Vienna he had to make a report of his studies and observations to the Society of Medicine in Vienna. He read a paper before the conservative members of the Society and told them things they never knew before. He told them of Charcot's proofs that certain physical manifestations of hysteria were not necessarily physical in origin but were mental and operated because of mental influence. He told them that it was possible to induce hysterical paralysis by hypnosis. All this sounded ridiculous to the members of the Society of Medicine in Vienna. They laughed at his report.

This derisive laughter did not disturb Freud. He determined to learn more about hysteria and neuroses. He continued with his studies and kept careful reports on his unorthodox findings. But still the good doctors of Vienna laughed at him and did not take him seriously. However, there was one physician who somehow thought that young Dr. Freud had something of importance to offer. This man was Dr. Josef Breuer, a family doctor of good reputation and much older and more experienced than Freud.

Breuer had been Freud's friend before Freud went to Paris to study with Charcot. Breuer was very much interested in hysterics. He had one case in particular that had interested him very much. The patient was a young girl suffering from hysteria. Her symptoms were temporary, with recurrent paralysis, disorders of speech, and sleepwalking tendencies. Breuer had used hypnosis and had asked her for her reminiscences, attempting to get deeper into the origins of the trouble. Each of her symptoms, he learned, had a point of beginning, a place where it had appeared for the first time. As soon as he had traced the symptoms back to this point by hypnotic questions they had vanished. In this way he was able to eliminate most of her trouble.

Freud was very much interested. Breuer called the process catharsis. He believed that the cure was effected by suggestion, which served to bring back to a normal path the energy which had been diverted into a symptom. The more he learned about Breuer's system the more enthusiastic Freud became. He began to use Breuer's method on his own patients, and the two men worked together in their effort to gain a better understanding of the workings of the human mind.

The two men worked intensively on the new method and after they had accumulated sufficient data on the subject they decided to write a book. Before its publication Freud left Vienna again for a visit to France. This time he went to Nancy, where Dr. Bernheim, another well-known neurologist, was doing remarkable things with hypnotism. Freud thought that it would be a very good idea to perfect his knowledge of hypnotism to make him a more effective therapist in mental diseases.

In his association with Bernheim, Freud witnessed many interesting things. Bernheim believed that all the value of hypnotism rested in suggestion, and with this point in view he made some remarkable cures and some even more remarkable experiments.

One of his experiments made a very profound impression on Freud. Bernheim would tell a man in a hypnotic state to perform some trivial act, for instance, to open an umbrella after he awakened, that is, about 5 minutes later. The subject would awaken, would act normally for a short time, and then would inevitably go to the umbrella and open it.

This in itself was nothing new. What was amazing was that, when the subject was questioned as to why he had opened the umbrella, he was embarrassed and evaded the question. It was not because he was consciously ashamed of his reason for doing so but because he had thoroughly submerged the origin of his act and could not answer the question.

Bernheim, without resorting to hypnosis, would bring the origin of the act back to the subject's mind. With suggestion and reiterated persuasion, the subject would be induced gradually to recall all the incidents of the hypnotic state. The embarrassment was thereby removed and the necessity for evasiveness eliminated.

Freud was thoroughly impressed with Bernheim's experiments. They seemed to relate quite closely with the experiences he had with Breuer, when forgotten origins of symptoms had been brought to the foreground of the mind by the method of catharsis under hypnotism. There was undoubtedly some mental mechanism that repressed certain ideas, and from his experience Freud knew that these ideas were usually unpleasant ones. This repression was not a conscious thing. It seemed to be an automatic, unconscious process that kept from the patient's awareness unpleasant or shocking associations.

Freud returned to Vienna with more knowledge and increased enthusiasm, but without a theory. But he had an inkling of what the theory might be. He had the doctrine of repression. He believed that hysterical symptoms originated in an unpleasant sensation, or experience or impulse, which, having been repressed, released its energy through the devious path of the symptom.

Freud then began to construct a theory which rested on three principles. It appeared to him that the first of these principles must be determinism, because the symptoms he dealt with were not meaningless. They had definite cause and a definite reason for appearing in the way they did. He remembered one sentence in Goethe's essay he had read so many years ago: Nothing in nature is the result of chance; everything has its law.

The second principle he evolved from his clinical experience. The origin of the symptoms was not on the surface of the mind; it was not conscious. It had its origin in the unconscious, the hidden part of the mind.

The third principle upon which Freud built his theory was perhaps the most important of the three. This he also gained from his experience with patients. The principle was this: Repression was brought about by unpleasantness, associated in some way with the repressed material. This unpleasantness might take one of several forms. It might be merely a result of a shock suffered in an experience which caused the experience to be forgotten, or it might be the accompaniment of strong conflicting emotions within the patient, such as sexual love for a person too closely related for legal or moral sanction of the act.

Freud now had a clearly formulated theory resting on these three sturdy foundations, determinism, the unconscious, and the avoidance of the unpleasant in conscious life. And he now proceeded to build a new science on this foundation.

In 1895 Breuer and Freud published their results. They called attention to mental phenomena which had never been understood fully before. They gave abundant clinical proof illustrating the phenomena of conversion, by which an emotional experience is changed into a physical manifestation such as a symptom which had no apparent relationship to the exciting cause. They expounded the method of catharsis as a means of treating these cases.

This work by Breuer and Freud aroused great antagonism when it made its appearance. The thing that caused this opposition was the fact that Freud stressed the conception that the deep-rooted source of every case of neurosis was in some way or another related to the sexual drive. This was too much for the conservative medical profession to swallow. Even full-grown men and doctors of medicine thought that sex was a subject too sinful to be discussed. That anyone should dare to write about it was unthinkable.

But Freud was not intimidated by this prudish attitude. He continued his studies alone; even Breuer had deserted him. The older man had an established practice and became frightened by the almost universal condemnation that followed the publication of their first book. So Freud continued on his researches alone. He published his monumental "Studies on Hysteria." In this work he presented even fuller proof that sex was at the root of most cases of neuroses. He demonstrated the fact that where an hysterical symptom of one kind or another was adopted as a means of escape from an unbearable idea, in each case he found that the unbearable idea was connected with sexual experience and sexual sensations.

Case after case in which the sexual factor was the basis of mental conflict was presented by Freud, detailed, carefully analyzed, and logically presented. Yet he was cautious about generalizing. In his essay on the defense neuroses he merely stated that "Such unbearable ideas develop in women chiefly in connection with sexual factors . . . in all the cases I have analyzed it has been in the sexual life that a painful effect had originated . . . I merely . . . state that hithertofore I have not discovered any other sign of it."

It is a mistake to think that all Freud's work was concerned with elucidating the sexual origin of the neuroses. This is far from true. This was but one of his many, many contributions to the science of the human mind.

As time went on Freud's contributions became more valuable in helping us to understand the workings of the human mind. As a physician he also grew in stature. He learned to listen to the patient. He studied the conditions of the relation between patient and doctors and, obligating the patient to nothing but unrestricted frankness and himself to listening, he found that letting the patient talk about the first thing that came into his mind (a method he called free association) was of extreme value in helping him probe the innermost thoughts of the patient.

Freud found that frankness on the part of the patient was far from easy to secure. There were resistances in his relation to the physician. There was a tendency to swing between defiant independence and demanding dependency.

Thus it was that psychoanalysis grew out of the therapeutic need of neurotics. It was Freud's first goal to understand the instinctual drives that hide from consciousness. Here was a field that obviously resisted frank research because of strong emotional prejudices.

Freud found confirmation in his premise that the sexual function existed from the very beginning of the individual's life. The libido (as Freud called the sexual instinct) did not always develop smoothly and in a normal manner. Childhood was often filled with situations, experiences and mishaps which sometimes tended to make the early components, such as eating, drinking, playing, excreting and other physiologic processes, unduly strong or to give premature gratification to the instinct before the proper time. When this occurred, a fixation of the instinct at the point it happened took place. When this happened, the individual was frequently inhibited from developing further than this infantile or prepuberty stage in his sexual life.

The next step in Freud's development of this new science was the elucidation of the Oedipus complex. He found that after the auto-erotic stage, if early sexual desire had passed, the libido began to explore outside for its love objects. The child began to focus its love in one or another of its parents. Boys turned their love toward the mother, girls toward their father. This was something that had been observed for a great many years.

But no one thought of trying to find out why this was so. Freud went into this phenomenon a bit further than anyone had before. He found that the love of a boy for his mother did not stop at that. He developed hostile wishes against the father; he was actually jealous of his father and sought to take the father's place.

There were thus two components, love of the mother and antagonism to the father. This was even more true in neurotics. A similar situation was found to exist in girls, love of the father and antagonism toward the mother. In the case of the male he called this phenomenon the Oedipus complex (after the myth of Oedipus, who unwittingly killed his father and married his mother). When Oedipus became conscious of his enormous offense he became mad, tore the eyes from his head and ran away. In the case of females he called the phenomenon the Electra complex, after Electra, who was actually in love with her father.

The next contribution of Freud was to the study of dreams at getting at the behavior of the subconscious mind. It appeared evident to Freud that in sleep, when the bonds placed upon the unconscious by the ego were removed, the desires and yearnings of the patient came closer to expression and sought in the fantasy-creating ability of the brain the outlet that in waking life was closed to it.

Thus Freud discovered that dreams had a meaning. Fantastic, distorted and disconnected images that appeared in the dream were translations of desires and ideas hidden deep in the subconscious or unconscious mind. These manifestations of dreams were symbols of basic ideas. These symbols had to be interpreted to get at the meaning of the dream.

Following his work on dreams Freud turned his attention to a study of the phenomena of everyday life, the little blunders we make, the slips of the tongue and of the pen. These were lapses of the ego. These slips were the result of being caught off guard long enough to allow a hint of the unconscious desires to slip through to the outside world. This was due to some unpleasant incident; an example might be the forgetting of a name because there was something unpleasant connected with that name.

Freud's contributions to psychology consist not only of his own discoveries and theories but in his establishment and proof of propositions already formulated by others. The most important of these is undoubtedly the fact of unconscious motivation. We may accept as a fact that some if not all human behavior originates from motives of which the subject is not aware in his normal waking state. All of Freud's work was in some way connected with unconscious motivation, and all this important psychologic datum may be said to have been definitely established by him.

A second axiom in psychology that Freud helped to establish is that abnormal mental phenomena represent exaggerations or distortions of normal mental phenomena. The third postulate that Freud established was that a knowledge of biology is as important as a knowledge of psychology in understanding the behavior of man. Freud more than any other showed us how the biologically-founded urges become modified through the frustrations inherent in any culture in the process of growing up psychologically. The old belief that man's animal body and the society in which he lived could be largely controlled by his rational mind must be replaced by the belief that the nature of man's rational mind is largely controlled by the nature of his animal body, on the one hand, and by the nature of his culture on the other.

Just what are Freud's specific contributions to the study of the human mind? Dr. Joseph Wortis sums them up briefly in the following ten statements:

1. Psychoanalysis was the first psychiatric specialty to focus attention on the patient as an individual and not as a disease.

2. It introduced a dynamic point of view. Personality was regarded as a moving development instead of something fixed and static.

3. Personality was regarded as composed of many opposing and diversified tendencies and not as a unified, undifferentiated mass of single tendencies.

4. It freed psychology from the mechanical materialism of the physiologists and anatomists.

5. It strengthened scientific materialism at a time when religious idealism was influencing certain schools of psychology and psychiatry.

6. It introduced a positive type of treating mental ailments.

7. It helped shatter the taboos against an examination of sexuality and the family.

8. It made a penetrating and subtle analysis of many psychologic mechanisms that had been previously neglected or unknown: repression, projection, sublimation, regression, transference, reactions, formation, etc.

9. It presented a realistic picture of many sordid aspects of the contemporary family and personality.

10. It accumulated a vast wealth of observational data on human personality.

What, in brief, are the basic ideas of Freudian psychology? According to Dr. Wortis they are the following:

1. A belief in the preponderant influence of the unconscious. It was Freud's belief that people in general act the way they do because of innate instinctual drives modified by early experiences (in the first years of life) and only slightly by later experiences.

States Freud: "It is quite impossible to understand how psychological factors can be overlooked where the reactions of living human beings are involved; for not only were such factors already concerned in the establishment of these economic conditions, but even in obeying these conditions men can do no more than set their original instinctual impulses in motion—their self-preservative instinct, their love of aggression, their need for love, and their impulse to attain

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RECENT ADVANCES IN CANCER

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CANCER OF THE LARYNX

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Cancer of the larynx is one of the malignant lesions of the body that should be easiest to diagnose and treat, but the mortality rate compares rather unfavorably with that of malignant neoplasms of other locations. Four thousand to 6,000 of the 160,000 deaths per year in the United States due to cancer are caused by laryngeal tumors.

Carcinoma of the larynx constitutes about 4 per cent of all human neoplasms. It is 10 to 12 times more common in males than in females and most commonly occurs in the sixth decade of life. Orton,[1] however, had 1 patient $13\frac{1}{2}$ years of age with cancer of the larynx. The oldest patient recorded was 88 years of age.

The etiology has not been established. It was thought that the disease was more common in men because of excessive use of alcohol and tobacco, coupled in many cases with vocal abuse; but in the past 10 years when more women have been smoking, and probably more drinking, there has not been any significant increase of incidence in the female sex. However, 40 per cent of patients with keratosis of the larynx are excessive smokers and drinkers, and keratosis is considered a premalignant disease.[2] Approximately 28 per cent of keratotic lesions become malignant in varying degrees within 5 to 10 years.[3] Hence we see that smoking, use of alcoholic beverages, and excessive vocal abuse are not significant etiologic factors of cancer per se, but they are factors to be considered in keratotic lesions.

In our opinion, 90 to 95 per cent of all intrinsic laryngeal malignant neoplasms could and should be permanently cured; and yet, statistics show that from 50 to 77 per cent of the patients suffering from this disease are inoperable and hopeless when first seen by a physician.[4, 5] An average of 9 to 12 months elapses between the onset of symptoms and the first laryngeal examination; and another 3 to 6 months elapse before treatment of a definitive nature is begun. Thus, early diagnosis and early operation or treatment are the most important factors here as elsewhere in the body.

An early diagnosis should be easy to make. A diagnosis of cancer of the larynx should be made or suspected by every physician within 3 weeks of the onset of symptoms. It is a noisy disease. It makes itself known to the family, friends, the patient himself, and his doctor. Any hoarseness of more than 3 weeks' duration, especially in a male adult, should be considered a possible case. Jackson's saying that "Death often lurks under an overhanging epiglottis" is certainly true; and any patient with hoarseness should have his entire larynx examined, especially the region of the anterior commissure where most carcinomata of the larynx originate. If every part of the larynx cannot be seen with a laryngeal mirror, the direct laryngoscope should be used. Eighty-five to 90 per cent of all carcinomas of the larynx are on or near the vocal cords and cause hoarseness early. Ten to 15 per cent are elsewhere, and often the first symptom of these is throat discomfort or difficulty in swallowing. It is unfortunate that pain is almost always a late symptom, since if pain were an early symptom, the patient would probably be forced to consult his physician at a much earlier date, and the physician would be less apt to adopt the "wait and see" treatment. "Lumps" (metastasis to the cervical lymph nodes) in the neck are usually a late sign and represent an advanced stage of the disease.

Treatment may be by surgery, by irradiation, or by a combination of the two, depending upon the extent of the disease and the age and physical condition of the patient. The earlier the diagnosis, the better the prognosis. In the very early lesion, in which growth is confined to one cord and there is no fixation or lagging of the cord or arytenoid cartilage, laryngofissure will cure 80 to 90 per cent. The laryngofissure operation is a 30- to 40-minute operation under local anesthesia, with very little postoperative pain or discomfort. A voice of fair, often of good, quality is regained in 3 to 6 weeks.

During recent years when irradiation therapy has vastly improved, there has developed a growing tendency to treat this type of lesion by means of X-rays. Kernan,[6] Cutler,[2] and other men believe that this is the method of choice and state that the percentage of 5-year cures by this method is equal to that of surgery. Obviously it is to the patient's advantage to be cured by this method, since it preserves intact the functioning of the larynx and does not result in an unpleasant voice. At any rate, many men believe that X-ray therapy should be tried first and then, if the lesion does not respond adequately, surgery can be performed later, provided, of course, that the lesion is kept under close observation all the time.

If the lesion has crossed the anterior commissure, surgery should be done at once, laryngofissure or the Kemler operation, either with or without the use of X-ray therapy. Le Jeune[4] believes that all carcinomata of the larynx treated by surgery should also be treated by means of X-rays, both pre- and postoperatively, preoperatively to block all the cells that are undergoing active metastasis, and postoperatively in the effort to eradicate any remaining malignant cells. If the X-ray therapy is given by one who specializes in therapy of the larynx, no serious complications such as necrosis of the cartilage, etc. need occur; and, contrary to the opinion of some, surgery following a proper irradiation of the neck is easy, not more difficult to perform.

In lesions which have infiltrated the vocalis muscle or the arytenoid articulation and have produced immobility or lagging of the vocal cord, extirpation of the larynx, with or without irradiation, is the treatment of choice. Cancer of the larynx in the early stages spreads more slowly than cancer in any other location of the body because of the poor lymphatic drainage of the vocal cords and the surrounding cartilaginous box. Hence we know that when invasion has impaired the movement of the cord the lesion is too far advanced for laryngofissure. With modern antibiotics and modern surgical technics laryngectomized patients now enjoy approximately 50 per cent 5-year cures. Although the operation may be long and tedious, these new technics plus use of the antibiotics usually allow healing by first intention with shortening of the period of disability. We very rarely have esophageal fistulas which formerly were usual, and the stay in the hospital has been cut from weeks to days.

If the lesion has already metastasized to the cervical lymph nodes, laryngectomy and block dissection of the neck, with or without pre- and postoperative irradiation, should be resorted to. In this type of surgery the criterion should be, "how much you can safely remove, not how little you can safely remove." Some authors, Schall for instance, advocate routine block dissection of the neck on the affected side with all laryngectomies because of the fact that in 30 per cent of the specimens thus removed metastases were found in the cervical nodes and the strap muscles of the neck. Surgery is the only hope in cases of metastatic invasion of the neck, irradiation being merely palliative.

Cody[7] has compiled statistics of all the laryngeal malignant neoplasms of the past 10 years reported by authorities both in Europe and America. His figures on 5-year cures are as follows: laryngofissure, 76 per cent; irradiation, 67 per cent; laryngectomies, 60 per cent; irradiation salvage therapy, 30 per cent; resection of thyroid cartilage and irradiation without surgery, 38 per cent; intralaryngeal removal of the extremely early lesion, 93 per cent. From his statistics there is also an indication that the survival rate is higher if the tumor is graded 1 or 2 by the Brody classification rather than 3 or 4, with either surgery or irradiation.

One of the most significant advances in laryngectomies during recent years has been from a psychologic point of view in the teaching of these patients to speak with the so-called esophageal voice. Orton[1] says he is convinced that any patient without his larynx can learn to talk, whistle, smoke and even play a musical instrument. The rehabilitation of the laryngectomized patient should begin before the operation. He should understand thoroughly what is to be done in the way of surgery. He should see and talk to a patient who has had a laryngectomy. He should be sent, both pre- and postoperatively, to some of the speech centers where he can be taught to speak with the esophageal voice. In nearly every instance, with persistence and patience, he can learn to speak adequately. This régime should be a regular part of the pre- and postoperative therapy. For the occasional patient who cannot learn or is hindered for some other reason, a mechanical larynx can be obtained.

SUMMARY

1. Early diagnosis should be made in cancer of the larynx. Any patient with hoarseness lasting 3 weeks should be considered as possibly having a cancer.
2. Keratosis of the larynx is often a precursor of malignant changes and seems to be related to the excessive use of tobacco, vocal abuse, etc.
3. Irradiation therapy may produce as high a percentage of 5-year cures as surgery in very early carcinoma of the vocal cords.
4. Pre- and postoperative radiation therapy is advocated by some authorities for all laryngeal cancers.
5. Laryngectomy, with neck dissection, should be done if there is any question of extension of the lesion outside of the larynx.
6. Rehabilitation of the laryngectomized patient is a part of routine therapy. The majority of patients without a larynx can lead useful, pleasant lives.

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President's Page

A.M.A. DUES

The American Medical Association has departed from its traditional stand and, by vote of the House of Delegates at the Washington Clinical Session in December, will impose annual dues of $25.

Members of the Association will be encouraged to know what is to be done with the money. According to the *Journal* (December 17, p. 1155): "Much of the collected dues will be used to promote voluntary health insurance plans. Included in the attempts at furthering the adoption of insurance will be endeavors to encourage plans for individual subscribers, protection for those over 65 years of age and inauguration of special coverage for those faced with 'catastrophic' illness. Some of the money collected from dues will be used to fight the Administration's compulsory health insurance program."

It is hoped that the constructive program outlined by the Association will be so generally successful that the "fight" part can be reduced to an insignificant outlay.

The American Medical Association was probably unique in that it grew to such a size and wielded such influence without any membership dues at all. Now it is falling in line with other professional organizations. The influence of the American Medical Association depends largely upon its ability to speak for the large majority of the physicians of this country. This influence will be even more strikingly demonstrated if the physicians of this country maintain their membership in the Association.

Walter Freeman

Editorials

NEWSPAPERS AND YOUNGSTERS

It is the business of newspapers to print news. No one who believes in democratic principles would gainsay them freedom of speech except in instances in which the national security is involved. At the same time this freedom of speech should be used wisely. Newspapers have a great responsibility to the public. This responsibility is of paramount importance in regard to the effect of news items on the emotional and moral growth of children.

We have been greatly disturbed lately by front-page, headline articles in some of the Washington newspapers. For example, in one paper there appeared across the top of the front page in large black letters the caption, "Sailor Seized in Rape of Fairfax Girl, 14." Lower on the front page was an article entitled, " 'The Lord is Punishing Me, I Am Going Crazy,' Writes a Mother Who Left Baby in Garbage Can." In the evening edition of the same paper a similar large caption read, "U. S. Official's Wife Suicide." In another paper there was a large front-page article about the poor fellow who shot his three children to death, with a large photograph of the pitiable man. A week later on the front page of the same paper there appeared a large photograph of a murderer entitled, "A Killer—10 Minutes After."

Now, young people in the formative years of their lives read and see these things. The sordid aspects of life are emphasized at a time when these youngsters are developing their sense of security and when their moral character is being molded. We often wonder whether the editors have children of their own. If so, it would seem that to them these scandalous and morbid "hot" news stories are of more importance to them than the emotional welfare of their children. We doubt that most respectable American readers get much pleasure or a "kick" out of reading such articles as those noted.

The reason for this editorial in a medical journal is that physicians are concerned just as much, if not more, with the emotional and moral development and health of their patients as with their physical ills. Other organizations similarly interested in this matter are workers in the religious field, educators, and parent-teachers' associations. These groups could well combine in a campaign to urge newspapers to be more circumspect in the prominence and emphasis placed on news involving aspects of life and events that in the reading might affect adversely the youth of our Nation.

MEDICINE AT THE HALF-CENTURY MARK

We have reached a New Year and another half century of medicine. The past half century is now prologue. Following the discoveries of Pasteur, Koch, and Lister at the threshold of the past half century, unprecedented progress was made in internal medicine, surgery, preventive medicine, bacteriology, and biochemistry. Two World Wars intervened and concomitant with their mayhem and destruction, brilliant chapters of medical achievement and progress were written

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia

at home and among troops. When "the Japs got the quinine," another drug, atabrine, was available, and even more effective, and within the past decade chance discovery opened a brilliant and unfinished chapter of soil molds for the treatment of disease.

We view the next half century with confidence. No grave danger to the progress of medicine lurks on the horizon from without. There is danger from within, easily recognized and readily preventable. There must be concerted effort to consolidate our gains for the benefit of all the people; otherwise, medicine will lose its birthright and heritage. We must bring into our medical wards and into the home all the benefits and advantages of modern medicine. Medical discovery without advantage and application for all is only partially effective. Most considerate medical care for the patient as practised by Hippocrates, Galen and Sydenham is a prerequisite today.

Shrinking incomes from medical foundations endanger continued progress in teaching and research. The gaps incident thereto must be closed, and directly, lest our profession incur permanent crippling effects.

The past half century witnessed unprecedented progress in the prolongation of life expectancy from 48 to 67 years. The greatest benefits have come to those in the first three or four decades of life through discovery in medicine and surgery and the prevention of communicable diseases. The record of increased life expectancy for those already in the older decades is only a fraction of one per cent. This is a challenge to the mind and imagination of physicians everywhere, for degenerative diseases already threaten our social structure with insidious and termite-like invasion. We must know more of the underlying causes of chronic degenerative diseases, which may be arrived at only through research into the fields of curative and preventive medicine. Already in this atomic age progress is being made to combat degenerative diseases in biophysical medicine. Research with isotopes in plants, animals and man is also under way, and in plants the progress of radioactive minerals is observed as they pass through the soil, the rootlets of the stem, leaves and seed, to build proteins for body use in growth, maintenance, and repair. A new field in nutrition is evolving! Important discoveries in this field would be of vital concern to the cardiologist, geriatrician, pediatrician, internist, genitourinary specialist, psychiatrist, and preventive medicine groups, for theoretically every body cell must be properly nourished if degeneration is to be prevented.

The profession of dentistry stands at the threshold of new discoveries important to medicine. The work of Weston Price highlights our knowledge of nutritional defects in the causation of dental caries, with its attendant ill effects upon body tissues and structures. In the preventive field, the reduction of dental caries through fluorine treatment of school children in this community is outstanding as an example of the newer approach in preventive dentistry, also vitally important to medicine.

The medical profession has much at hand of scientific importance to consolidate its position as the time-honored profession of two milleniums; the private practitioner of medicine is favored as never before with invaluable laboratory, X-ray, and mechanical aids, developed during the past half century. The public is better educated generally and more appreciative of the scientific progress made in medicine, and the people want medical care generally through their own private physician.

Then as we reach the new year and a new one-half century, we do so with confidence and assurance that the profession will meet every requirement of a vastly improved social order made possible principally by physicians themselves in the treatment and prevention of disease.

Daniel L. Seckinger, M.D.
Health Officer,
District of Columbia

EXANTHEM SUBITUM

In one sense there is no more satisfactory diagnosis to make in pediatrics than exanthem subitum when a young infant is observed with a high fever without any significant objective evidence to account for it. One advances the prediction of persistence of the hyperthermia for 3 to 5 days and then sudden defervescence with the appearance of a measles-like rash. When the rash appears, one assumes the role of an oracle and locally his reputation zooms as the relief of the parents at the fall in the baby's temperature mixes with wonderment as to how you knew like "old faithful" the inevitable sequence of events.

In another sense, however, this diagnosis is the most unsatisfactory to advance to a young couple, particularly if there is a grandmother present or one who can be reached by telephone. Mixed surprise and suspicion greet your explanation that the disease is exanthem subitum, sometimes called roseola infantum or Moser's measles or sixth disease. With each new synonym, the suspicious angle of the eyebrows goes up a little further and you wind up weakly, "It's a disease something like mild measles."

A quick consultation with the grandmother rapidly confirms that she had never heard of such a disease when she was a girl, and the doctor probably doesn't know what he is talking about. The best thing to do is to write the diagnosis on a slip of paper and advise the mother to look it up in her baby book.

Exanthem subitum was first described as a clinical entity by Zahorsky in 1910. Although the disease had been known for over a century, it probably had been confused with rubella and rubeola. It is mildly contagious and is seen almost exclusively in infants under three years of age, six to eighteen months being a particularly susceptible period. This disease of all the exanthematous diseases is second only to measles in occurrence, and it seems strange that the diagnosis is not more frequently made. Typical cases probably occur without the rash (roseola-sine eruptione) and these, in addition to subclinical infections, probably account for the age specificity. The onset is sudden and may make its appearance with a fever of 105.0° to 106.0° F. This lasts for from 3 to 5 days, may be of intermittent or remittent type, and suddenly drops by crisis. The infant is very irritable, anorexic, and a mild diarrhea is often present. A fine macular or macular-papular rash then appears on the trunk and upper extremities, fading in 1 to 3 days. The rash usually appears within 24 hours of the febrile crisis but occasionally precedes defervescence by a few hours. Neurologic symptoms are not infrequently seen and constitute an important feature in the differential diagnosis. Since between 6 to 10 per cent of the cases have their onset with a convulsion associated with the high fever, the importance of ruling out meningitis is obvious, and, even when the true diagnosis is suspected, hospitalization of such infants for observation is mandatory, since meningitis in the young may be manifested by just such a picture. Leukopenia with lymphocytosis are characteristic but is usually not present at the onset and offers only confirmatory proof of the diagnosis at the time of the appearance of the rash.

The causative agent is still not known, but in all respects it simulates other diseases of known virus etiology.

Exanthem subitum must be distinguished from measles, German measles, meningitis, and drug dermatitis. Negative spinal fluid findings, the absence of Koplick spots, coryzal and bronchial symptoms, plus the absence of fever with the appearance of the rash render the differential diagnosis rather easy. Differentiation from a drug rash may be more difficult.

Treatment is entirely symptomatic. Penicillin and sulfadiazine are frequently administered when upon physical examination on the first day only a mild injection of the nasopharynx is found to account for the high fever. This treatment, of course, is stopped when the diagnosis becomes apparent. At the present time in Washington we are seeing a large number of these cases, and the maximum incidence may be expected to continue until the spring. The incubation period appears to range between 7 and 17 days, and no special method of control has been described.

Generally speaking, the prognosis is excellent; however, a few disturbing reports have recently appeared in the literature describing prolonged convulsions and hemiplegia, pointing up the importance of controlling febrile convulsions at their very onset to circumvent cerebral scarring. The overwhelmingly favorable prognosis of this disease makes it one of the most satisfactory entities to diagnosis, and, because its incidence in the pediatric population is rather high, the querulous attitude of parents is hard to understand. Perhaps the editors of *Reader's Digest* might be persuaded to popularize the name of this interesting disease.

FREDERIC GERARD BURKE, M.D.

HERPES ZOSTER

Herpes zoster is an acute infectious disease due to a filtrable virus bearing a close relationship to the virus of chickenpox. Herpes is rarely seen in children, in whom varicella is of course common, and many patients with herpes have not had chickenpox in earlier life. The essential lesion is an inflammation of the dorsal spinal ganglia, although lesser involvement of the corresponding segments of the cord and the adjacent meninges is also seen. Skin lesions develop in areas corresponding to the diseased ganglia and are the result either of peripheral migration of the virus or of antidromic stimulation of the sensory nerves.

Pain and cutaneous hyperalgesia in the distribution of one or two nerve roots are usually the first symptoms. Often there is a mild systemic reaction with fever, malaise, and headache for a few days. The skin soon becomes hyperemic in the painful area, and at this stage the resemblance to erysipelas may be strong, especially when the face is affected. After 3 or 4 days vesicles containing a clear liquid appear in groups along the course of the nerve. These soon rupture and become crusted, and within a week or 10 days of onset the crusts separate, leaving shallow scars. Ordinarily pain susbides as the skin lesions heal, although hyperesthesia and pain sometimes last for months.

Because herpes zoster usually involves thoracic ganglia, motor signs are not prominent. However, when an extremity is affected, weakness and muscle atrophy are noticeable. Similarly herpes ophthalmicus may be accompanied by weakness of eye movements as a result of inclusion of cranial nerves 3, 4, and 6 in the process. The ophthalmic form is comparatively benign when the first branch only of the ophthalmic nerve is diseased. Extension to the nasociliary branch is dangerous because of the potentialities of corneal ulceration. Rarely, encephalitis is part of the picture.

The treatment of herpes zoster had always been disappointing to patient and physician alike. Simple local measures for the skin and administration of analgesics were the principal methods. It is encouraging, therefore, that two new technics of treatment seem to be remarkably effective. One consists in the use of 1 per cent procaine solution for infiltration of sympathetic ganglia in the region of the diseased dorsal spinal ganglia.[1] This procedure usually relieves pain quite promptly, presumably because it abolishes increased sympathetic vasoconstrictor tone and segmental arteriolar spasm. In addition, the involution of the dermal lesions progresses more rapidly. The other technic recently reported[2] consists in the administration of aureomycin in doses of 500 mg. every 6 hours for 2 or 3 days. Although the published report includes experience with only 4 cases, the response to the drug seems to have been so definite that further experience will undoubtedly verify its value.

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In and Out of Focus

BY THE OBSERVER

1950 This New Year is distinguished from its recent predecessors by an atmosphere of uneasiness. One senses a widespread feeling of insecurity and an anxiety over what the future holds.

Obviously it is difficult in a world as troubled as ours to view conditions and events without deepening concern. Nevertheless, it seems to your Observer that the sanest course for us to pursue is to live each day to its fullest, taking every advantage of the opportunities which are always at hand to make ours a better and a more stable society.

If this premise is acceptable, members of the District Medical Society might ponder its opportunities in 1950. Here are some which occur to your Observer:

There is always room for improvement where the scientific program is concerned. The Program Committee should therefore direct its best efforts to the end that the most recent developments in medical science are presented by the best informed speakers available. Many of the latter are to be found here in Washington.

The most frequently heard complaint among physicians is that there are too many medical meetings. Of course there are—the number is literally overwhelming—and something should be done about it. Why not in 1950?

High standards of medical practice will be maintained only if they are safeguarded by a vigilant profession. Our Society has and should continue, through its boards and committees, to make a most important contribution in this field.

By every means possible the Society should do its utmost to assure the people of Washington adequate medical care at a cost within their means. A good beginning has been made. To the Society's credit is the establishment of MEDICAL BUREAU, the 24-hour telephone exchange, and the inauguration of its prepayment plan, MEDICAL SERVICE OF THE DISTRICT OF COLUMBIA. The Society, in coöperation with the Medico-Chirurgical Society of the District of Columbia, Inc., is also sponsoring an investigation to determine the over-all costs of medical care to hospitalized patients in the District of Columbia as compared to their incomes. The findings in this survey, the technical aspects of which are being handled by the Public Health Service, should be helpful in solving some of Washington's medical socioeconomic problems.

In the near future the Society will devote its attention to the domiciliary care of indigents, an important and worth-while project. As reported in this column last month, an emergency medical care program for the District is also under consideration.

Most of the problems confronting the Society are not ones that the medical profession alone can solve. They can be met adequately only if the Society has the sympathetic understanding and coöperation of the people of the community.

Your Observer is confident that these will be forthcoming if the constructive nature of its objectives is understood.

* * *

The AMA Stirs the Capital

There were 8,487 physicians and guests who participated in the Clinical Sessions of the American Medical Association held in Washington, December 6 to 9. Attendance at the scientific demonstrations, lectures and exhibits at the National Guard Armory was excellent. Especially satisfying to physicians in the District of Columbia was the enthusiastic reception of the various features of the meeting for which local committees were responsible. This was particularly true of the scientific program and exhibits, in which the local profession and medical institutions were well represented.

Much of the credit for the success of the meeting must go to Dr. Oscar B. Hunter, Local General Chairman. He has no peer when it comes to planning medical programs. Widely known for his ability, efficiency and tireless energy, he inspired the committees under him to do an outstanding job.

As might have been expected, the newspapers devoted a great deal of space to the scientific aspects of the meeting; however, the discussion of compulsory health insurance and the $25 dues voted by the AMA's House of Delegates stole the headlines. Although one can understand the press's reasons for playing up these controversial matters, it was regrettable from the medical profession's point of view.

While most of what was written was factually correct, it gave the impression that the AMA's position is still largely negative. Whether or not this is justified is still a source of disagreement in and outside the profession.

Many physicians feel that greater emphasis should have been placed from the beginning of the educational campaign on the positive aspects of the AMA's medical care program. They hope it is not too late to convince the American people that the Association means what it says when its officials give assurance that the negative phase is a thing of the past. They agree with the *Washington Post* which, on December 10, editorialized:

"If the AMA is now really prepared to devote itself to the extension and improvement of voluntary medical care systems with vigor equal to that it has expended in fighting the Truman plan, it may well serve the double purpose of improving the Nation's health and discouraging a dubious venture in compulsory insurance."

Such an aggressive positive policy will be a denial of the statement recently credited to Senator Paul H. Douglas of Illinois, who was quoted during the meeting of the House of Delegates as saying, "I do not question [the AMA's] motives but they are extremely ill-advised to take such a negative attitude in opposing almost every proposal that has been advanced . . . I hope the AMA doesn't keep a sterile attitude. The public won't forever take 'No, no, no.' "

There is danger of the AMA becoming too involved in politics. The Association must not lose sight of the fact that it is primarily a scientific body and that its principal objectives are to advance medical knowledge among the profession and the laity and to help maintain high standards of medical practice. Unfortunately these objectives can be adversely affected if there is political interference. Nevertheless the Association, in the opinion of this Observer, should not concern itself primarily with the social impact of various political schemes but with whether they will impede or facilitate medical progress and the provision of adequate medical care.

By devoting itself largely to matters in which it is expert, the AMA will win many friends who are now inclined to look upon organized medicine's activities with skepticism.

* * *

A New Approach

If memory serves him right, your Observer has commented before on the difficulties encountered by the Medical Society in an effort to keep its membership informed in regard to its activities. This, of course, is a problem common to all medical societies and, for that matter, to all organizations.

The situation is usually this: A majority of the members have no official responsibility. Comparatively few of them are elected to office and only a limited number serve on committees. To most members, therefore, occasions when they get together for enlightenment and pleasure are most enjoyable. They are decidedly not interested in the administrative and business affairs of the group, being content to leave such uninteresting matters to their officers or appointed representatives.

With some modifications, this is an accurate picture of conditions in our Medical Society. In ordinary times apathy would be no cause for concern, but these are perilous days for organizations as well as individuals. Far-reaching decisions must be made which should receive the thoughtful consideration of the rank-and-file of the membership. For every member will be personally affected by the actions now being taken by his organization. But how to arouse more than casual interest in these matters—that is the 64-dollar question.

Methods used by the Society to stimulate thought and activity have been the accepted ones—letters, bulletins, reports, publications, and so on. How effective are they? Recently in discussing the Society's finances a member stated that all printed material received by him, excluding checks, of course, was consigned to the waste basket. It is to be hoped this is not the practice of many of our members.

Speaking of publications, there have been encouraging reports where the MEDICAL ANNALS is concerned. Not long ago a member whom your Observer thought had slight interest in anything pertaining to the Society said that in his opinion the ANNALS was read by a large majority of members. Conversations with others seem to confirm this view.

In an attempt to inform newer members about the Society, Orientation Lectures were inaugurated in 1946. Many favorable comments have been made upon these lectures; however, a comparatively small proportion of the Society's membership has attended them.

A new proposal approved by the Executive Board at its November meeting, it is believed, will prove effective. A careful check will be made of all members to ascertain those who have served on boards and committees in the past ten years. Those who have never taken part officially in the Society's activities will be invited to the Executive Offices to meet with the President and Secretary, at luncheon, at which time the Society's recent history, its activities and its finances will be discussed. It is planned that a group of 20 members will be invited each week beginning sometime in January.

Your Observer will report at some future time how this effort is received. There seems little doubt that it will prove of considerable benefit to the individual member as well as to the Society.

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Bond Issue Voted Until 1937 the Society was content to restrict its real estate holdings to its building at 1718 M Street, N.W. That year it purchased the adjoining property, 1710 M Street, N.W. About a year and a half ago the Executive Board became interested in buying the building to the west, 1720 M Street, N.W. The Society did not have the funds with which to make this investment so the Secretary was instructed by the Board to communicate with physicians who might be in a position to do so.

Dr. Oscar B. Hunter thereupon acquired the property with the understanding that the Society would purchase it for what it cost him. The matter was finally presented to the Society on November 9, 1949, the purchase having been approved by the House Committee and the Executive Board. Reasons advanced for acquiring the property were (1) that it would be valuable to the Society in event of expansion, and (2) that it would materially enhance the value of all its property.

In regard to the financing of the transaction it was recommended that bonds be issued in the amount necessary. At a meeting held November 9, 1949 the Society voted in favor of the purchase and agreed that non-negotiable bonds should be issued in the amount of $25,000 to be sold to members only. The bonds would mature in ten years and would bear 3 per cent interest annually.

The purchase price of 1720 M Street, N.W. is about $55,000. There is a first trust on the property of $31,854.71, leaving a balance to be raised in cash of $23,291.44.

Bonds issued will, of course, not only be a lien on the property purchased but on the Society's other real estate holdings. The building at 1718 M Street, N.W. is at present free of encumbrance. There is a trust on 1710 M Street, N.W. of $16,000.

Bonds will be available in the very near future to members who desire to purchase them. They will be issued in units of $50.00 and multiples thereof. Those interested in buying bonds should get in touch with the Society's Executive Offices.

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Looking Over Medicine's Shoulder

Some physicians are still skeptical of the efforts being made by their medical societies to enlighten the laity in regard to the technical aspects of medicine. However, their number is rapidly decreasing Most medical men agree that the facts should be presented in an intelligent and understandable manner and that an informed public can be a valuable ally in the fight against disease.

As for the people themselves, their interest in health has vastly increased. In fact, there is pretty good evidence that medical articles appearing in lay publications are extremely popular reading. Steven M. Spencer, Science and Medical Editor of *The Saturday Evening Post*, made a point of this recently in an address before the Omaha Mid-West Clinical Society. In the course of his remarks he said:

> "I can speak with detailed knowledge only of our own survey [of readers], but results of others are comparable. Every other week an organization carefully polls a selected sample of homes all over the United States to determine how the current issue of the *Saturday Evening Post* was received. Interviewer and interviewee sit down and thumb through the magazine, and the reader is asked which articles he or she read clear through. For purposes of analysis, the non-fiction is classified in six or seven categories—health and hygiene, peoples and places, war and peace, the United States government, applications of science (other than medicine), et cetera. The survey reveals that the medical articles, health and hygiene, consistently rank at or near the top in reader interest. In 1946 they led the whole list. In 1947 they were tied for third place, and all surveys to date this year show them once more in top position."

Reasons advanced by Mr. Spencer for this interest were (1) that "the subject appeals to both sexes. Articles on football, politics, business and atomic energy will poll more men readers than women, and the reverse will be true of pieces on Hollywood, homemaking or children. But both men and women are keenly interested in new discoveries about heart disease, cancer, ulcer, deafness, backache," and (2) that "most medical news is good news. It has been said that the good and the peaceful make dull reading. But in this day when so much of the news is bad, good news is doubly welcome. And medicine, in my opinion, is not dull at any time. Even when an article does not announce a brand new treatment but simply presents a summary of the most up-to-date knowledge on the cause and treatment of any disease, or reports a promising development along the research front, it gets a good reading. For the reassurance which comes from a fuller understanding of a condition affecting the reader or a member of his family is itself ample justification for publishing the information."

Mr. Spencer cited several instances where carefully prepared medical articles for lay consumption have had beneficial results. While he recognized the danger of dealing with some medical subjects, the benefits derived from a knowledge of the facts, he insisted, more than outweighed the harm which results.

"Aside from the cancer problem, which is a difficult one, is it not true that in the majority of instances the patient could be told about the physiology of his illness and the principles governing its treatment?" he asked. "Is not the patient who knows what it's all about and what his doctor is trying to do for him likely to be more coöperative?"

How does the lay science writer go about his job? Here is Mr. Spencer's description:

> "The technic varies somewhat with the publication and the individual, but every conscientious writer goes to considerable length to obtain all the facts, negative as well as favorable. In reporting a new development or a newsworthy situation or issue he does not confine himself to one man's word but may talk with fifteen or twenty in an effort to arrive at a balanced appraisal. This may take him to Boston, New York, Philadelphia, Detroit, Omaha, Rochester and Minneapolis for material on one article alone. In addition to interviewing doctors and attending medical meetings, the writer may review two or three dozen articles in the technical literature and thumb through several books. The whole task, from the first scribbled note to the finished and accepted manuscript, may consume five or six weeks or more, and after that may come minor revisions and the reading and correcting of the final proof. Medical articles handled by our own publication represent an editorial expenditure in time and money averaging about 20 per cent more than the average for articles in all other categories.
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> "Because it is recognized that illustrations attract the reader and help tell the story, a great deal of energy is also directed toward obtaining good photographs. And the photographer is often tangled to the point of frustration in the coils of medical protocol. He may make a long trip to take a doctor's picture, only to find the doctor has changed his mind for one reason or another. If at long last he is allowed to set up his camera and lights, the physician may permit only the back of his head to be photographed, or he will request that his name be left out of the captions. It's a case, to paraphrase Mr. Whittier, of ' "Shoot if you must this old gray head, but please omit my name," he said.'
>
> "Now the reasons for this behavior are not hard to find, even though the science writers do not always consider them valid. The difficulty arises, as we have said, out of a tradition of medical modesty, a feeling that it is unethical for a doctor's name or face to appear in newspapers or popular magazines. The tradition apparently is based on the theory that if it were declared ethical to blow one's own horn, the quacks would blow loudest, attract most of the business and ruin the public's health. The theory is all right, but the fact of the matter is that the quacks disregard all rules against hornblowing and do pretty well for themselves. I hold no brief for self-advertising, but I think it should be clearly differentiated from bona fide medical news. For if it is agreed that accurate articles on medical progress are useful, then writers should be able to obtain information from doctors without fear of subjecting the latter to censure by their colleagues.
>
> "As science writers and editors we feel there is no reason why we and the doctors cannot coöperate in an atmosphere of mutual respect and confidence. We have been and can continue to be good friends and allies of the medical profession. Speaking now for the *Post*, I can say that it has supported the doctors on every major problem they have faced in the last ten years. It opposed socialized medicine and it is still against it. It has carried articles exposing anti-vivisection as a dangerous racket—as have other magazines—even at the risk of serious publication losses. We are for the American medical profession."

Mr. Spencer devotes his concluding remarks to the need for "a workable policy on medical news" which will satisfy physicians and the press. The Code of Coöperation adopted by the Colorado State Medical Society and the press and radio of the state, he said, is "a tremendously encouraging sign." The Code provides that there shall be official spokesmen for each county medical society—usually the president, secretary and publicity chairman. These officials can be quoted "in matters of public interest for authenticating information" and their action "shall not be considered by their colleagues as a breach of the time-honored practice of physicians to avoid personal publicity since it is done in the best interests of the public and the profession."

★

The Poor Reader

It is estimated that 12 per cent of the general population have reading defects. In the opinion of Dr. William H. Crisp of Denver, these defects are more intimately associated with the psychology of vision and educational methods than with visual abnormalities. Speaking before the American Ophthalmological Society last June, he summed up his views as follows:

> "Refractive errors play a relatively small part in the problem of the poor reader, although they should still be kept in mind as one basis for the early inhibitions of childhood.
>
> "Acquirement of the ability to read well is still the most important purpose of the first two or three years of school, and failure to acquire this basic skill at the proper time is a cause of limitation and failure in later lines of endeavor. It affects the whole life of the individual.
>
> "It is essential to recognize the existence of the reading problem within the first year or so of schooling and to take steps promptly toward its correction, by whatever method of group or individual instruction may prove necessary or advisable, but with special emphasis on ability to recognize at first, letters and their phonetic values, and later the analytic details of syllable and word structure.
>
> "As regards many children, perhaps the great majority, it is probable that an important mistake has been made, for the past quarter century or more, in too wide a departure from the old more or less mechanical methods of teaching word structure and recognition. The most practical approach to educational economy in acquirement of the reading skill includes not merely an attempt to correct failures already more or less firmly established—but the use of teaching method which will as far as possible avoid creation and fixation of reading failures in each new school generation."

Commenting on the psychological aspects of reading, Dr. Crisp said: "Failure of the reading 'door' to open will often be due to absence of favoring environment influences, or to the existence of inhibiting or obstructing factors in the child's psychological experience. Fear, anxiety, jealousy, rivalry, rebelliousness, inferiority complexes, a sense of loneliness in effort, may play important parts. Once the sense of difficulty or obstacle has been created, its mere presence has great power to interfere with progress. Among hindrances we must not forget excessive eagerness in a parent or positive dislike for a teacher, or the contagious personal reactions of schoolmates."

Much of the difficulty Dr. Crisp ascribed to poor educational methods and the tendency to accept the new as being necessarily better than the old. He mentioned specifically the 'flash' or 'look and see' method which had been adopted in the belief that it would lead to greater speed and facility of reading. The result, he said, was disappointing. Investigation has disclosed there have been considerably more reading difficulties among people who have been taught the flash method than among those who from the very beginning have been subjected to the phonetic method in which the individual letters and the construction of syllables are the basis of learning to read.

> "It seems not unreasonable to suppose," Dr. Crisp explained, "that brief exposure of the pupil's eyes and brain to a new word or group of words without analytical preparation would favor the very sorts of confusion as to spelling which are encountered most frequently in the poor reader. The emphasis on speed rather than accuracy must surely increase the subconscious sense of defeat and conflict in the child's mind.
>
> "I have never hesitated to encourage mothers to teach their children the letters before the usual primary school age, and I have never experienced any reaction which seemed to speak against this practice. I have even wondered whether it might be well, on account of the benefit to be derived from individual instruction, to form classes in which young mothers might learn how to instruct the preschool child in the rudiments of reading."

As to the steps which should be taken when the damage has been done, he advocated a "reversion to methods and principles which for a while were too readily discarded as old-fashioned, mechanical, and unscientific."

T. W.

MEETINGS

Wednesday, February 8

The Washington Heart Association will present the following program:

"Coronary Artery Disease," William D. Stroud, M.D., Professor of Cardiology, Graduate School of Medicine, University of Pennsylvania.

Wednesday, February 15

The following program will be sponsored by the *District Rheumatism Society*:

"The Study of Cortisone and ACTH in Rheumatic Diseases," Charles Slocumb, M.D., of the Mayo Clinic, Rochester, Minn. Dr. Slocumb is co-author with Drs. Philip S. Hench and E. C. Kendall of recent publications on cortisone.

WASHINGTON PRESS COMMENTS ON MEDICAL ISSUES

AMA CAMPAIGN FUND*

There is nothing strange about the decision of the American Medical Association to collect $25 a year in dues from its members. Some labor unions assess their members several times this amount in dues. The more interesting question is what the AMA proposes to do with the three million dollars annual fund that the new dues will bring in. At least some of the members who have had a hand in shaping the policies adopted by the AMA's house of delegates insist that a substantial portion of the fund will go toward promotion of voluntary health insurance plans that now have full support of the organized medical profession.

Opposition among the doctors to President Truman's compulsory health insurance proposal is as strong as it ever was. But it does not follow that the AMA plans to spend the bulk of its new campaign fund for mere beating of the drums against "socialized medicine." The more progressive elements in the Association are said to be convinced that compulsory health insurance has been defeated so far as the present Congress is concerned. With that accomplished, they reason, the Association can proceed full steam ahead with promotion of voluntary plans under which families can obtain assurance of medical care in return for routine monthly payments.

The Council on Medical Service reported to the house of delegates that 89 coöperatives for medical care are now operating in rural communities. Voluntary health plans sponsored by laymen have been organized in 43 states and are serving an estimated 1,600,000 persons. The Blue Cross plans, through which participants make prepayments for hospital service, have enrolled 33 million persons. The preponderant thinking in the AMA now appears to be that the voluntary plans have proved their worth and that a strong forward movement to increase their coverage is in order. Meanwhile the Association is sending a delegation to Europe to study the medical care programs of several countries in the hope of improving systems in operation here and of strengthening the fight against compulsion.

When it is remembered that only a few years ago organized medicine was fighting voluntary plans for group medical care, the evidence of progress is unmistakable. In our opinion, the AMA still has a long way to go in meeting its responsibility to the American people. But its progress ought to be acknowledged. If the AMA is now really prepared to devote itself to the extension and improvement of voluntary medical care systems with vigor equal to that it has expended in fighting the Truman plan, it may well serve the double purpose of improving the Nation's health and discouraging a dubious venture in compulsory insurance.

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* Editorial in *The Washington Post*, December 10, 1949.

MR. EWING IS CORRECTED*

Having gone all the way to London in search of evidence to support the President's and his own proposals for a national health insurance program, Federal Security Administrator Oscar R. Ewing has at least discovered that it is easy for travelers like himself to get into hot water abroad when they comment on their host country and say things that are not accurate.

What has happened to Mr. Ewing is that he has aroused the ire of the United Kingdom's Fellowship for Freedom in Medicine, an organization founded and headed by the King's physician. He has done so by declaring at a London press conference that Britain's national health service is "working remarkably well," that it has been misrepresented in the United States by critics of the administration's proposals, that it is still being fought by only "a small group of diehard British doctors," and that the Fellowship—which represents this "small group" —has been receiving financial contributions from the American Medical Association.

In reply to all this, the Fellowship—particularly resenting the suggestion that it has been getting large AMA subsidies in a sort of international conspiracy against national health insurance anywhere —has been at pains to issue a special and understandably barbed statement making the following main points: (1) That it has received, as tokens of sympathy, about $140 from the chairman of the Medical Society of Madison County, Indiana, and $10 from the American College of Physicians and Surgeons; and (2) that the organization's membership, far from being "small," is made up of almost 3,000 doctors, or approximately 11 per cent of the total number in active practice in Britain.

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* Editorial in *The Evening Star*, December 16 1949.

Further, the Fellowship has gone on to observe that it is fighting solely and simply "to keep party politics out of medicine," and that its members—who have been "doing their best" to make the British program work in the public interest—are increasing in numbers "week by week as the fundamental defects of the service become more and more evident." Finally, the Fellowship's statement, noting the brevity of his survey and his failure to visit a single doctor's surgery in London, has seen fit to dismiss Mr. Ewing's remarks as being "not the result of an impartial investigation, but just another item" of politicking for the Truman administration's own health proposals.

All things considered, Mr. Ewing seems to have asked for this rebuke and correction. If the British Fellowship has been accurate in stating the facts, then he certainly has been wrong enough to make everybody look more closely at some of his other arguments in favor of establishing national health insurance in America.

MR. EWING ABROAD*

Oscar Ewing, Federal Security Administrator, announced on Nov. 22 that he was going to Europe to make a month's study of national health insurance in six countries.

A strong advocate of compulsory health insurance, which the Truman Administration will try to push through the next session of Congress, Mr. Ewing said: "If I find anything in Europe that should shake my faith in national health insurance, I will so report."

He arrived in England on Dec. 2. On Dec. 5, he told reporters England's health plan was a good thing. On Dec. 9, he held a press conference and said that what he had seen in England convinced him a national health program would be good for America. On Dec. 13, moving over to Edinburgh, he told reporters: "My statement last week in London stands." On Dec. 16, leaving London for Stockholm, he said: "I adhere to my opinion that the national health scheme is a good thing."

He could have said he was adhering to the opinion he held on his arrival.

Mr. Ewing now has two weeks left for a concentrated study of national health insurance in Sweden, Ireland, Switzerland, Italy and Israel. Wonder what he'll find?

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* Editorial in The *Washington Daily News*, December 17, 1949.

PRESENT POLICY OF TRUDEAU SOCIETY ON BCG VACCINATION

Members of the American Trudeau Society, the Medical Section of the National Tuberculosis Association, and other physicians in the United States have been interested for many years in the active immunization against tuberculosis with BCG.* The expansion of public health activities in the field of tuberculosis control by official and voluntary agencies and the acquisition of new knowledge concerning immunity in tuberculosis have prompted the American Trudeau Society to make the following observations and recommendations:

I. BCG vaccine prepared under acceptable conditions, and administered by approved technics to persons negative to tuberculin, can be considered harmless.

II. The degree of protection recorded following vaccination is by no means complete, nor is the duration of induced relative immunity permanent or predictable. The need for further basic research on the problem of artificial immunization against tuberculosis is recognized and is to be emphasized. Studies should be directed toward:

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* BCG, an abbreviation for Bacillus Calmette-Guerin, is made from an avirulent bovine tubercle bacillus and is the most practical known immunizing agent against tuberculosis. It has been widely used in Europe, but its use in this country has been restricted largely to controlled studies because of many unanswered questions about the value of the vaccine. BCG is given only to persons who do not react to a tuberculosis skin sensitivity test.

A. Improvement of the immunizing agent

B. Development of criteria for vaccination and revaccination

C. More accurate determination of which groups in the general population should be vaccinated. Several well controlled studies are under way at the present time.

D. Promotion of carefully controlled investigative programs, which, as a rule, will be carried out best under the auspices of official agencies such as the U. S. Public Health Service, state and municipal health departments, and other especially qualified groups.

E. Devising of adequate record systems for management of statistical problems involved in recording and following large numbers of vaccinated people.

III. On the basis of studies reported in the literature, an appreciable reduction in the incidence of clinical tuberculosis may be anticipated when certain groups of people who are likely to develop tuberculosis because of unusual exposure, inferior resistance, or both, are vaccinated.

In the light of present knowledge, vaccination of the following more vulnerable groups is recommended, provided they do not react to adequate tuberculin tests:

1. Doctors, medical students and nurses who are exposed to tuberculosis
2. All hospital and laboratory personnel whose work exposes them to contact with the bacillus of tuberculosis
3. Individuals who are unavoidably exposed to infectious tuberculosis in the home
4. Patients and employees in mental hospitals, prisons and other custodial institutions in whom the incidence of tuberculosis is known to be high
5. Children and certain adults considered to have inferior resistance and living in communities in which the tuberculosis mortality rate is unusually high.

IV. It is recommended that efforts be continued to perfect and to meet in practice suitable standards for the production of BCG vaccine, and that, when practicable, commercial firms be licensed under the National Institute of Health to produce this vaccine.

V. The Society believes that since BCG vaccination affords only incomplete rather than absolute protection, the most effective methods of controlling tuberculosis in the general population are:

A. Further improvement of living conditions and the general health

B. Reduction of tuberculous infection, which can be accomplished by modern public health methods and the unremitting search among presumably healthy individuals for patients with infectious tuberculosis.

C. Prompt and adequate medical and surgical treatment of patients with active disease

D. Segregation and custodial care of those not amenable to accepted forms of therapy

E. Adequate rehabilitation.

VI. It is to be emphasized that BCG vaccination must not be regarded as a substitute for approved hygienic measures or for public health practices designed to prevent or minimize tuberculous infection and disease. Vaccination should be regarded as only one of many procedures to be used in tuberculosis control.

VII. Expansion of modern diagnostic, therapeutic and rehabilitation facilities is required at this time to make full use of these new methods which can accomplish further dramatic reduction of tuberculosis mortality and morbidity rates in the United States.

MEMBERSHIP

The following applicants for membership will be voted on at the meeting of the Executive Board, January 23, 1950:

For Active Membership

Mark Baum, George Washington University—1944
Thomas E. Curtin, Georgetown University—1945
F. DeWitt Fox, College of Medical Evangelists—1945
John A. Kneipp, Duke University—1943
Paul A. Reed, State University of Iowa—1939

For Associate Membership

F. Turner Reuter, George Washington University—1944

HOME CARE DEMONSTRATION PROJECT

The purpose of this project is to determine the feasibility of providing medical care plus nursing and other services to patients in their own homes who would, under present circumstances, be occupying hospital beds principally at the Gallinger Municipal Hospital at a cost to the District of approximately $9.60 per patient day. Determinations will be made of the following:

1. The number of patients who could potentially be cared for in a representative community (District of Columbia) by this method and the number of days of hospital care which could be saved in caring for a patient with a long-term illness in his own home.

2. The actual costs to the community of this method including welfare department costs, etc.

3. The number of beds that will be required for adequate care of the chronically ill in both hospitals and convalescent nursing homes when the present increased load is reduced to a minimum.

4. The possible deficiencies existing in nonmedical facilities which may affect adversely the load at the hospital (socioeconomic factors, which will prevent a medically suitable patient from receiving services of the Program).

As a related objective, attempts will be made to demonstrate the feasibility of coördinating existing community medical and nonmedical resources.

ORGANIZATION

1. *Medical Officer in Charge.* This person upon whom the responsibility rests to coördinate the activities of the project is a physician on assignment to the D. C. Department of Health and Hospitals from the U. S. Public Health Service, Division of Chronic Disease. He has direct responsibility for matters of general policy to the administration of the D. C. Department of Health and Hospitals, and to the U. S. Public Health Service. Because of the nature of the program in medical care, policy supervision will also emanate from the respective medical schools who have the responsibility of medical supervision of the patients at the Gallinger Municipal Hospital, and the D. C. Medical Society and the Medico-Chirurgical Society.

2. *The Visiting Physicians.* Since the success of any program of this type depends upon the qualify of the physician selected to give the actual medical care to the patients, these physicians must meet the following qualifications:

A. They must be professionally of high caliber, trained in internal medicine;

B. They must have professional status with medical schools and staff privileges at Gallinger Municipal Hospital, and other associated institutions;

C. They must be acceptable to the Medical Societies;

D. Since this type of program would be a valuable adjunct to the medical education of students and younger staff men, the physicians must be equipped to carry on a teaching program along with the actual care of the patients.

In order to satisfy these requirements, physicians who have completed the years of hospital training now required for certification by the American Specialty Boards, but who have not yet completed the years of practice also required by these Boards, will be acceptable for appointment by the Medical Officer in Charge.

Because of the necessity to maintain the teaching phase of the Program, the medical schools will be expected to assume the responsibility of keeping the supply of suitable men adequate for the needs of the operations of the Program. These physicians will receive compensation comparable to what is received in similar facilities (Army and the Veterans Administration) for a prescribed number of hours to be given to the Program on a nonpersonal service contract basis.

3. *Public Health Nurse.* At the present time in the medical wards at the Gallinger Municipal Hospital, a Public Health Nurse has been assigned from the D. C. Department of Health and Hospitals to attempt to facilitate the aftercare of the discharged hospital patient. She will continue under the Demonstration Project to perform similar service and will retain her present connection and administrative control by the D. C. Department of Health and Hospitals, but will receive instructions and guidance from the Medical Officer in Charge and visiting physicians on the Program. For those patients who do not fall within the test or control areas, she will continue to carry on under present procedures. For those who fall within the scope of this demonstration project, she will have the additional responsibility of being the evaluator and coördinator of nursing needs on each individual

patient after general recommendations by the physician.

3 (A). *D. C. Health Department Nurses.* It is expected that many services provided at the present time will continue to be provided in the same manner for patients who will come under the purview of this Demonstration Project. These nurses will remain under the direct control of the Division of Nursing of the D. C. Department of Health.

3 (B). *Instructive Visiting Nurse Service.* The services provided by this organization will continue to be provided, it is expected, for the patients falling within the scope of the Demonstration Project in the same manner as is now being provided. It is expected that the present load now carried by this agency will be somewhat reduced in individual cases by having the primary evaluations by the Public Health Nurse and by having medical supervision to direct the nurse's activities.

4. *Social Worker.* The social worker will have twofold responsibility. Her activities will be carried on for each individual patient on recommendations of the Medical Officer in Charge. She will arrange the services of a social nature, contacting Hospital Permit Bureau for socioeconomic data in evaluating the social aspects of the patient's home situation, in making contacts for the patient with social agencies in the District of Columbia, and in attempting to act as coördinator of social agencies for the benefit of the patients.

She will be a member of the operational team consisting also of the Public Health Nurse and the physician, and the activities of each will be governed by the need of the individual patient.

Her second major activity will be concerned with the training of social service trainees in the School of Social Service at Catholic University and Howard University. Since there is a dearth of positions in which social-work trainees can be placed, this function of the worker will be a contribution to the over-all community social service set-up in enabling more persons to gain a practical experience in the field of social service.

4 (A). *Social Service Trainees.* These persons will be assigned from the respective schools of Social Service to the Home Care Department at no budgetary expenditure from the Department and will be engaged in actual social service work under the guidance of the Social Service Worker mentioned above while receiving the practical experience and guidance which will constitute their educational experience within this Program.

5. *Administrative Personnel* will consist of an Administrative Aide, directly responsible to the Medical Officer in Charge, a Clerk-Stenographer, and a Statistical Clerk.

6. Additional Services.

(A) Those to be requested from existing agencies on a request for service basis.

(1) *Housekeeping service.* This service is already being provided by the Hospital Permit Bureau of the D. C. Department of Health and Hospitals and the requirements of this Program are not expected to materially affect the demand on their facilities. Requests will be made for occasional visits of the housekeeper to the home of the patient being cared for in the Demonstration Project and arrangements for such services will be made much in the same manner as under the present system. It is expected, however, that provision of the other services mentioned, i.e., coördinated medical, nursing, and social service activities, will materially reduce the need for housekeeping services on many patients.

(2) *Drugs.* It is expected that the physicians on seeing the patient in the home will write prescriptions which can be filled at no cost to the patient at the pharmacies where at present prescriptions of like origin are being filled, such as the D. C. Health Department and Gallinger Municipal Hospital pharmacies.

(3) *Equipment and supplies.* In appropriate cases, a hospital bed may have to be loaned in order for care at home to be feasible, to facilitate nursing care, and increase the adequacy of the patient's physical facilities in the home. It is expected that a limited number of hospital beds, bed pans, and similar type of bedside equipment can be made available from the reserve supply on hand at Gallinger Municipal Hospital.

(4) *Laboratory.* Physicians visiting patients in the home will, in limited instances, be expected to obtain specimens for laboratory examinations when the medical condition warrants. Specimens will be returned to the office of the Department of Home Care, and the laboratory at Gallinger Municipal Hospital will be expected to perform such tests as may be necessary on these specimens.

(B) Special services necessary for the operation of the program not yet provided by any agency within the District, or if provided, such facilities are being taxed to capacity and, for the purposes of the Program, additional personnel must be added.

(1) *Physiotherapists.* Many of these patients in the home can be rehabilitated to a large degree, thereby reducing the amount of professional nursing and medical care needed. This service will enable a patient to recover sufficiently to attend an outpatient department. A physiotherapist, then, will be a necessary adjunct to the services to be provided to the patient. It does not appear that there are sufficient available personnel of this type within the present facilities of either the D. C. Health Department or Gallinger Municipal Hospital and consequently this personnel will have to be acquired at the expense of the operation of the Program. Should the demand be great enough on expansion of the Demonstration Program, more than one person of this type may be necessary. It is expected that this person would work in close conjunction with personnel of the D. C. Division of Vocational Rehabilitation in appropriate cases, but will not be duplicating or replacing personnel of that Division.

(2) *Nutrition and dietetic services.* In many instances, patients under Home Care will require fairly intensive education and instruction on matters of obtaining and preparing foods in those conditions in which diet plays an important role in the management of the disease. Depending upon the difficulty of the problem and the number of patients requiring such services, additional personnel may be needed on a part-time consultative capacity.

(3) *Additional technical equipment.* Equipment such as a portable electrocardiograph machine and like technical equipment which may be necessary for the care of the patients in the home will have to be obtained in order to obviate the necessity of the patient returning to the hospital or clinic for special study, saving transportation and inpatient costs, and enabling more rapid evaluation of acute medical problems or of progress.

PROCEDURE

1. *Source of patients.* Patients on the whole will be selected from the medical wards at Gallinger Municipal Hospital. Other sources of patients will be the Blue Plains Convalescent Home in order to reduce the demand on that facility and enable more appropriate patients to be moved from Gallinger Municipal Hospital to Blue Plains. This will further reduce the demand for hospital beds at Gallinger Municipal Hospital. Appropriate cases will also be accepted by referral from various divisions within the Health Department, e.g., persons with pulmonary tuberculosis who are at present being cared for at home, and similar conditions of long-term nature. Also patients who may have been previously hospitalized in any other facility in the District of Columbia and who will be eligible for hospital care, or who may be seen by any District physician in the home, may, if appropriate for the Demonstration Project, be accepted directly for service without an admission to Gallinger Municipal Hospital being necessary. In short, any patient who may have received an adequate work-up and appears a satisfactory candidate for home care may receive care under this Program regardless of his previous contact with any medical or allied facility in the District. For those patients who will come on the Program from Gallinger Municipal Hospital, the following procedure will obtain.

2. *Selection and supervision of appropriate patients.* Since it is the practice to discuss the admissions of the previous day at a conference in the early morning, it is expected that the visiting physicians will attend such conferences and make tentative selections of possible appropriate cases directly on admission so that the house staff can consider transfer to the Home Care Service and will make every effort for rapid and adequate work-up of the patient with a view toward as rapid a discharge as feasible. It is frequently the practice of physicians to delay work-ups on patients who appear to have a long-term illness, because of the greater need of the acute patient, and thus no provision is made for the patient's discharge.

In addition to this initial contact with potential patients, the physicians on the Home Care Service will be expected to conduct routine rounds on the wards to observe the hospital care of patients with long-term illnesses with a view toward accepting appropriate cases for Home Care. They will also have an opportunity to see and follow up those patients who may have received a hospital admission on a temporary basis. By contributing his experience in directing the patient's management in the home, he can facilitate a greater understanding of the patient requiring hospitalization, and thereby aid in the patient's recovery and contribute to the educational experience of the house staff member.

3. *Nursing and social evaluation.* When a patient has been considered by the physician to be a candidate for home care in the near future, the social worker and the nurse will discuss their respective services with regard to the patient while he is still hospitalized, and can have completed their efforts by the time he is ready for discharge. This will prevent any delay in discharging the patient, which usually occurs when evaluation is delayed until discharge is actually recommended.

It is true that in many cases the home situation will not allow the acceptance of a patient on the Program, but for those who are accepted, it is expected that there will be a saving of hospital stay up to a week, which is usually necessary for complete evaluation of an individual patient. Should the patient, from both the medical and social aspect, be considered appropriate for Home Care and the nursing problem has been evaluated and considered to be feasible to provide in the home, the visiting physician, social worker, and nurses meet with the Medical Officer in Charge and all aspects of the case are discussed. Decisions are made as to medical management, type of nursing care, and social service follow-up that will be necessary for the complete and adequate care of the individual patient.

4. *Provision of services in the home.* Arrangements are then made by the nurse for actual nursing care in the home, by the Medical Officer in Charge through his Administrative Aide for the auxiliary service, by the social worker for her follow-up and contacts which may be necessary, and by the physician for his scheduled visits. Within 24 to 48 hours after the patient has returned home, he has had the initial visit by all personnel concerned. The house staff physician, with the aid of the attending physician, will have completed a summary of the patient's hospital record, and a medical chart is made out for the patient in which the comments of all personnel involved are entered. Subsequent care to the patient becomes almost the complete responsibility of the attending physician under the supervision of the Medical Officer in Charge, and in addition to regularly scheduled calls by the visiting physicians, there are periodic visits by the Medical Officer in Charge and the Chief of Staff to Gallinger Municipal Hospital and by any consultant attending physician who may in specific instances be necessary. Nursing care and social service requirements are reëvaluated periodically and the patient is kept under constant close surveillance for any appropriate changes in his status either for discharge to an outpatient department or readmission to the hospital.

5. *Records.* Each time a visit is made into the patient's home, a note to that effect with pertinent information will be entered into the patient's record, which will resemble to a large extent the hospital record of that patient. Also the activities of the Statistical Clerk and Administrative Aide with respect to the fiscal and statistical aspects of the case will have been commenced at this point. Details of the procedure will change in minor respects depending upon the condition of each individual patient, and at this point one can only outline in general terms the manner in which a specific patient may be handled.

RESIDENCY TRAINING IN OBSTETRICS AND GYNECOLOGY

The American Board of Obstetrics and Gynecology has not made nor is it contemplating any changes in its residency training requirements, despite rumors of an increase in training years. Eligibility requirements remain the same, namely, three years of acceptable formal training, followed by at least two years of post-training practice in the specialty.

Hospitals are inspected and approved for training jointly by the Council on Medical Education and Hospitals of the American Medical Association and this Board. Approvals are granted for training periods of one, two and three years depending on the available facilities and the findings of the survey inspections.

This Board has no objection to residency services being arranged by hospitals for periods longer than three years, unless this dilutes the candidate's clinical training opportunities too much during the first three years. However, the Board does not accept a fourth year, or more, of residency training as a substitute for any part of the required two years of post-training practice.

The importance of post-training practice in the specialty is emphasized as an opportunity for maturing of the candidate and for colleague appraisal of a man's ability when working on his own responsibility in his chosen community. The only exception to this ruling is in the case of men advancing from their training into full-time teaching positions. These men then must complete at least two years in such positions.

Copies of the Bulletin of this Board, outlining the above requirements in more detail, are available to hospital administrators, or to candidates, upon application to the American Board of Obstetrics and Gynecology, 1015 Highland Building, Pittsburgh 6, Pa.

AMA VOTES MEMBERSHIP DUES

The House of Delegates of the American Medical Association at its meeting in Washington, D. C., December 6 to 8, 1949, adopted amendments to the By-laws of the American Medical Association whereby Division One, Chapter II, Tenure of Membership, has been changed to read as follows:

Chapter II.—Tenure and Obligations of Membership; Dues

Section 1.—When the Secretary is officially informed that a member is not in good standing in his component society he shall remove the name of said member from the membership roll. A member shall hold his membership through the constituent association in the jurisdiction of which he practices. Should he remove his practice to another jurisdiction, he shall apply for membership through the constituent association in the jurisdiction to which he has moved his practice. Unless he has transferred his membership within six months after such change of practice, the Secretary shall remove his name from the roster of members.

Section 2.—Annual dues, not to exceed $25.00, may be prescribed for the ensuing calendar year in an amount recommended by the Board of Trustees and approved by the House of Delegates. Each active member shall pay said annual dues to his constituent association for transmittal to the Secretary of the American Medical Association.

An active member who is delinquent in the payment of such dues for one year shall forfeit his active membership in the American Medical Association if he fails to pay the delinquent dues within thirty days after notice of his delinquency has been mailed by the Secretary of the American Medical Association to his last known address.

Any former member who has forfeited his membership because of being delinquent in payment of dues may be reinstated on payment of his indebtedness.

The House of Delegates, on recommendation of the Board of Trustees, set the membership dues for the year 1950 at $25.00.

The full effect of the new provisions will have to be studied and developed during the next year. However, the following interpretations of the amended By-laws, as set forth by the Secretary of the AMA, will be of interest to our members.

(a) Active membership in the American Medical Association will continue to be limited to those members of constituent associations who (1) hold the degree of Doctor of Medicine or Bachelor of Medicine, and (2) are entitled to exercise the rights of active membership in their constituent associations as provided in Article 5 of the Constitution of the American Medical Association.

(b) A member of the American Medical Association shall lose his membership in the Association when the Secretary of the American Medical Association is officially informed that a member is not in good standing in his component society or is delinquent in the payment of the American Medical Association dues established by the above change in the By-laws.

(c) Forfeiture of membership in the American Medical Association due to failure to pay dues will have no effect on membership in the component or constituent medical societies unless the component or constituent societies amend their respective constitutions and by-laws. It is, therefore, possible that a physician may be a member of his component and constituent societies and at the same time not be a member of the American Medical Association.

(d) The amended By-laws provide for the collection of the American Medical Association membership dues by the constituent associations for transmittal to the Secretary of the American Medical Association. The detailed method to be adopted by each constituent association will vary in each state. In general, the method utilized by each state for the collection of its own component and constituent association dues should be followed.

It is planned to provide each member of the American Medical Association a membership card and certificate of membership when his dues are paid.

No changes have been made in the Constitution and By-laws of the American Medical Association with respect to Fellowship. Eligibility for Fellowship and annual Fellowship dues of $12.00 remain the same. Under the present By-laws a Fellow will pay for the year 1950 total membership and Fellowship dues of $37.00.

The following members may be exempted from the payment of the $25.00 American Medical Association membership dues: retired members, members who are physically disabled, interns, and those members for whom the payment of such dues would constitute a financial hardship.

No member should be exempted from the payment of his American Medical Association dues who is not exempted from his component and constituent society dues.

SOUTHEASTERN SURGICAL CONGRESS, WASHINGTON, MARCH 6–9

The Eighteenth Postgraduate Assembly of the Southeastern Surgical Congress will be held at the Shoreham Hotel, Washington, March 6–9, 1950. Dr. Harry Lee Claud is General Chairman of the Committee on Arrangements. Assisting him as co-chairmen are Dr. Charles Stanley White and Dr. Harry H. Kerr.

The various committees which are responsible for the success of the Congress are headed up as follows:

Clinic and Scientific Exhibit: Dr. J. Ross Veal

Auditorium and Commercial Exhibit: Dr. W. Ross Morris

Entertainment: Dr. William A. Morgan

Hotels: Dr. H. H. Schoenfeld

Information and Public Relations: Theodore Wiprud

Reception: Dr. White

Transportation: Dr. J. Ogle Warfield, Jr.

Ladies Entertainment: Mrs. Harry Lee Claud

The preliminary program for the Assembly lists the following papers and speakers:

"Extrapleural Plombage Using Lucite Balls in the Treatment of Pulmonary Tuberculosis," Otto C. Brantigan, M.D., Baltimore, Md.

"Carcinoma of the Cervix," Enoch Callaway, M.D., LaGrange, Ga.

"Colostomy and Ileostomy," William C. Cantey, M.D., Columbia, S. C.

"The Treatment of Squamous Celled Carcinoma of the Vulva," Bayard Carter, M.D., Durham, N. C.

"Management of Hyperthyroidism," Richard Cattell, M.D., Boston, Mass.

"Plastic Surgery of Interest to the General Surgeon," Harry Lee Claud, M.D., Washington, D. C.

"Benign Lesions of the Cervix," Conrad G. Collins, M.D., New Orleans, La.

"Endometriosis," Donald S. Daniel, M.D., Richmond, Va.

"Clinical Significance of Intrapulmonary Neoplasms," Edgar W. Davis, M.D., Washington, D. C.

"Uterine Bleeding, the Gynecologist's *Bête Noire*," Gilbert F. Douglas, M.D., Birmingham, Ala.

"The Management of Ectopic Pregnancy," Frederick H. Falls, M.D., Chicago, Ill.

"Familial Urological Diseases," Albert E. Goldstein, M.D., Baltimore, Md.

"The Spleen; a Few Surgical Aspects," D. P. Hall, M.D., Louisville, Ky.

"Nephropexy; Its Indications, Operative Technic and End Results," William F. Harper, M.D., Selma, Ala.

"Chest Conditions which Come under Realm of General Surgery," Archibald C. Hewes, M.D., Gulfport, Miss.

"The Meckel's Diverticulum," Hal E. Houston, M.D., Murray, Ky.

"Haemangio-Sarcoma of the Stomach," Harry H. Kerr, M.D., Washington, D. C.

"C. Jeff Miller: His Teachings in the Management of Uterine Fibroids," Lucien A. LeDoux, M.D., New Orleans, La.

"Exploration of the Common Bile Duct," Howard Mahorner, M.D., New Orleans, La.

"The Complications of Spleenectomies," J. D. Martin, Jr., M.D., Atlanta, Ga.

"Present Status of the Surgical Therapy of Gastric and Duodenal Ulcer," Henry W. Mayo, Jr., M.D., Charleston, S. C.

"The Management of Carotid Body Tumors," Raymond W. McNealy, M.D., Chicago, Ill.

"Surgical Treatment of Intracranial Aneurysms," William F. Meacham, M.D., Nashville, Tenn.

(Subject to be announced) A. T. Miller, Jr., M.D., Chapel Hill, N. C.

"Experiences in the Surgical Treatment of Congenital Pulmonary Stenosis," Charles B. Olim, M.D., Memphis, Tenn.

"Carcinoma of the Urinary Bladder," Louis M. Orr, M.D., Orlando, Fla.

"Some Further Considerations in the Treatment of Surface Cancer," Neal Owens, M.D., New Orleans, La.

"Recent Advances in the Treatment of Cancers of the Esophagus and Stomach," George T. Pack, M.D., New York

"Surgical Problems in the Aged Negro," Willard H. Parsons, M.D., Vicksburg, Miss.

"Gastrocolic Fistulae," J. C. Patterson, M.D., Cuthbert, Ga.

"Hyperparathyroidism Diagnosis and Surgical Treatment," William F. Rienhoff, Jr., M.D., Baltimore, Md.

"The Use of Bone Bank Bone in Bone Surgery," Charles Rountree, M.D., Oklahoma City, Okla.

"Gastric Resections and Vagotomies; Morbidity and Mortality in a General Hospital Not Associated with a Teaching Center," Joseph S. Stewart, M.D., Miami, Fla.

"Diagnosis and Treatment of Carcinoma of the Larynx," Gabriel Tucker, M.D., Philadelphia

"Segmental Renal Functions Studies in Surgical Patients," William L. Valk, M.D., Kansas City, Kansas

"Ectopic Pregnancy," H. H. Ware, Jr., M.D., Richmond, Va.

"The Effect of Medical Education upon Our Economic Future," Robert J. Wilkinson, M.D., Huntington, W. Va.

"Sigmoido-vesical Fistula: Diagnosis and Treatment," Charles Stanley White, M.D., Washington, D. C.

"Radical Operation of Cancer of the Breast," William Crawford White, M.D., New York

"The Treatment of Extensive Burns," Hays R. Yandell, M.D., Tulsa, Okla.

"Treatment of Mixed Peritonitis with Aureomycin," George H. Yeager, M.D., Baltimore, Md.

CORRESPONDENCE

WASHINGTON, D. C., November 22, 1949

EDITOR
MEDICAL ANNALS OF D. C.
WASHINGTON, D. C.

DEAR SIR:

For many years the Medical Society and the Bar Association have both maintained committees which were created to bring about a closer association between the two organizations. The object of the existence of these committees was to evolve a better understanding of problems which seem to keep them apart. So far as I can see these committees have been inactive except for an occasional committee luncheon.

Is there any reason why two meetings a year cannot be held, one at the Medical Society and one at the Bar Association, where the members of each group can become better acquainted by discussions of subjects of mutual interest? Lawyers accuse doctors of being unwilling to coöperate with them in their work. They find a lack of enthusiasm to testify in court especially where doctors happen to be defendants. They do not talk our language and are under the impression that we are snooty.

Doctors, on the other hand, have an aversion to legal formalities and procedure. They resent receiving subpoenas without notice which cause interruption of their routines without proper compensation. They resent attempts to embarrass them on cross examination. They do not like their opinions questioned and testimony belittled or their integrity reflected upon. These bones of contention and other sources of misunderstanding could be ironed out among friends if the iron curtain which now separates the two professions could be lifted. I like almost everybody when I take the trouble to know them.

Very truly yours,
JAMES A. GANNON, M.D.

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The AMA Clinical Session in Washington, December 6–9, 1949, broke previous attendance records. Of a total registration of 8,487, 4,258 were physicians.

At this meeting the Board of Trustees of the American Medical Association officially announced the retirement of Dr. Morris Fishbein on December 1 as Editor of the *Journal of the AMA* after almost 37 years of outstanding service. He is now consultant medical editor of Doubleday and Company, publishers, and medical editor for the Blakiston Company of Philadelphia, subsidiary of Doubleday.

Dr. Fishbein has been succeeded by Dr. Austin Smith, former Director of the Division of Therapy and Research and Secretary of the Council on Pharmacy and Chemistry of the AMA. As Editor of *JAMA* he will be responsible to the Board of Trustees for the administration of all editorial activities associated with the scientific publications of the AMA. This will include the departments for the Library, Quarterly Cumulative Index Medicus, Standard Nomenclature of Disease and Operations, and special scientific journals (nine at this time). Dr. Smith will be, as was his predecessor, Chairman of the Advertising Committee of the AMA.

Dr. Smith's place on the Council is being taken by Dr. Robert T. Stormont, Medical Director of the Federal Food and Drug Administration, Washington. Dr. Stormont joined the Pure Food and Drug Administration in 1946, first as medical officer and in 1947 as medical director.

Dr. W. W. Bauer, Director of the AMA Bureau of Health Education, has replaced Dr. Fishbein as Editor of *Hygeia*. Beginning with the March issue, the well-known health magazine for laymen will be called *Today's Health*. *Hygeia* was first published by the AMA in 1923.

Dr. Richard J. Plunkett, who has been on the editorial staff of the *Journal*, will be Managing Editor of the nine AMA special journals which are devoted to specific fields of medicine.

Dr. Andy Hall, of Mt. Vernon, Illinois, was elected by the House of Delegates as the General Practitioner of the Year. He is a "country doctor," 84 years old, who has practiced nearly 60 years in Mount Vernon and the surrounding farm country. Three sons are physicians. One of them, Colonel Wilford F. Hall, is flight surgeon for Military Air Transport Service and lives in Arlington, Va.

The International and Fourth American Congress on Obstetrics and Gynecology will be held in New York, May 14–19, at the Hotel Statler. Dr. Howard C. Taylor, Jr., of New York City, is Chairman of the General Program Committee for the Congress. Dr. Edwin F. Daily, of Washington, is arranging special programs for the public health section. He is also arranging the program of speakers on the economic aspects of obstetrics and gynecology that will occupy one of the morning sessions. For registration details, housing data and other aspects of the Congress, address inquiries to Dr. Fred L. Adair, 161 East Erie Street, Chicago 11, Illinois.

The 51st Annual Meeting of the American Therapeutic Society will be held in Boston, Mass., April 13–16, 1950, at the Copley Plaza Hotel. Dr. Oscar B. Hunter, Secretary of the Society, urges members to make reservations at once for this meeting by writing to Mr. George Gorman, Room Reservation Manager of the Copley Plaza, mentioning the American Therapeutic Society when so doing.

The AMA Council on Industrial Health will hold its Tenth Annual Congress on Industrial Health at the Roosevelt Hotel in New York City, February 20 and 21.

The American Society for the Study of Sterility is offering an annual award of $1,000, known as the Ortho Award, for an essay on the result of some clinical or laboratory research pertinent to the field of sterility. Competition is open to those who are in clinical practice as well as to individuals whose work is restricted to research in basic fields or full-time teaching positions. The Prize Essay will appear on the program of the forthcoming meeting of the Society, which is to be held at the Sir Francis Drake Hotel in San Francisco, June 24 and 25. Full particulars may be obtained from the Secretary, Dr. Walter W. Williams, 20 Magnolia Terrace, Springfield, Mass. Essays must be in his hands by April 1, 1950.

The Tenth Annual Essay Contest of the Mississippi Valley Medical Society will be held in 1950. A cash prize of $100, a gold medal, and a certificate will be awarded the best unpublished essay on any subject of general medical interest (including medical economics and education) and practical value to the general practitioner of medicine. Contestants must be members of the American Medical Association who are residents and citizens of the United States. The winner will be invited to present his contribution before the Fifteenth Annual Meeting of the Mississippi Valley Medical Society to be held in Springfield, Ill., September 27–29, 1950, the Society reserving the exclusive right to first publish the essay in its official publication, the *Mississippi Valley Medical Journal.* All contributions must be typewritten in English in manuscript form, submitted in five copies, not to exceed 5,000 words, and must be received not later than May 1, 1950. Further details may be secured from Dr. Harold Swanberg, Secretary, Mississippi Valley Medical Society, 209–224 W.C.U. Building, Quincy, Illinois.

The American Board of Obstetrics and Gynecology announces that candidates who successfully complete the Part I examination (to be held February 3, 1950) will proceed automatically to the Part II examination, to be held May 21 to 28, inclusive, 1950, at The Shelburne, Atlantic City, New Jersey. Notice of the exact time and place of the Part II examinations will be sent all candidates well in advance of the examination date.

Calendar of Meetings

December 1	Executive Committee of Gallinger Hospital
	Section on Neurology and Psychiatry
December 2	Committee on Industrial Medicine
December 4	American Association of Medical Clinics
December 5	American Association of Medical Clinics
December 6	Health Section, United Community Services
	Registered X-ray Technicians of Washington
December 7	Woman's Auxiliary
December 10	Washington School of Psychiatry
	Joint meeting of Washington Psychiatric Society and Washington Psychoanalytic Society
December 12	Board of Censors
	Medical Service
	Washington Orthopedic Club
December 13	Grievance Committee
	House Committee
	Subcommittee on Child Welfare
	Medical Officers' Reserve Units
	District Dental Society
December 14	Scientific Meeting of Society
December 15	American Academy of General Practice
	Medical Advisory Committee to Washington Regional Blood Center
December 16	Committee on Cancer Control
	Health Section, United Community Services
December 19	Executive Board
	Board of Censors
December 20	District Rheumatism Foundation
December 22	Committee on Medical Care
December 27	Medical Officers' Reserve Units

National Social Hygiene Day will be observed, February 1. This year's theme and slogan is "Social Hygiene is a Family Affair." Emphasis will be placed on the family-centered nature of social hygiene problems, whether these be VD infections (and repeated re-infections); sexual promiscuity; unsavory community conditions regarding commercialized prostitution; needed legislation for the protection of families; or lack of vigorous programs of education for family life. Copies of the announcement folder and a kit of program and publicity aids are available to Social Hygiene Societies and Committees and other groups planning observances of National Social Hygiene Day. Requests should be addressed to the American Social Hygiene Association, 1790 Broadway, New York 19, N. Y.

The Child Center of the Department of Psychology and Psychiatry of Catholic University announces fellowships (grants in the amounts of $3,200, $2,800, and $2,400 for 11 months) in child psychiatry for physicians who have completed one year of internship and one to three years of psychiatric training under supervision approved by the American Board of Psychiatry and Neurology. There will be one vacancy in February 1950, and two vacancies in July 1950. Further information may be obtained from Dr. Robert P. Odenwald, Director of the Child Center, Catholic University, Washington, D. C.

The Washington Psychiatric Society will meet on Saturday, February 18, in the Medical Society's building. This will be a joint meeting with the Washington Psychoanalytic Society. Dr. Henry W. Brosin, Professor of Psychiatry, University of Chicago, will deliver a lecture at 8:00 p.m. on "Psychoanalytic Studies on Cerebral Injury."

The George Washington University Medical Society will hold its 24th Annual Banquet and Alumni Reunion at the Mayflower Hotel, February 25, at 7 p.m. Dr. H. J. Russell McNitt is General Chairman of the Banquet Committee.

On exhibition at the **Army Medical Museum** is the exhibit, "Tumors of the Lung" and "Cancer Cells in Sputum and Bronchial Secretions," which has been loaned to the Armed Forces Institute of Pathology by the Mayo Foundation. This exhibit won a prize at the AMA's meeting in Atlantic City in June 1949 as an outstanding example of the use of a combination of colored wax reproductions and colored photographs of gross specimens and associated X-rays to illustrate a medical topic. It was prepared by Drs. J. R. McDonald, L. B. Woolner and C. Allen Good, under the technical supervision of Dr. Arthur H. Bulbulian, Director of the Museum of Medicine and Hygiene, Mayo Foundation, Rochester, Minn. Medical officers, civilian physicians, medical laboratory technicians, and medical artists are invited to view the exhibit, which will be on display until April 22, 1950.

The Medical Arts Society will meet, February 9, at the Kennedy-Warren. Dr. H. Franklin Kreuzburg will speak on "Coarctation of the Aorta."

Through the efforts of the **International College of Surgeons,** an international home is now available to surgeons from all over the world. The International College will house a new section of the Domus Medica at the College Headquarters, 1516 Lake Shore Drive, Chicago. This division will be known as the **Domus Chirurgica** and will be under the direction of Dr. Valentin Charry. It will offer to all surgeons a great variety of information, service and assistance in the fields of science, general culture and traveling problems.

Consolidation of the professional medical publications of the armed forces into a *U. S. Armed Forces Medical Journal* and its supplement, the *Medical Technicians Bulletin of the U. S. Armed Forces,* was announced in November. The new medical journal, scheduled for monthly publication beginning with the January 1950 issue, will replace the *Bulletin of the U. S. Army Medical Department* and the *U. S. Naval Medical Bulletin.* The Air Force, whose separate medical department was created last July, has not had a similar journal.

General policies for the guidance of the publications will be established by Dr. Richard L. Meiling, Director of Medical Services.

The journal will contain professional and scientific papers by physicians, dentists, nurses, and other professional personnel, as well as administrative material on the Army, Navy and Air Force medical programs. The *Medical Technicians Bulletin* will be devoted to improving the technical proficiency of enlisted medical personnel and will be published every other month.

The American Association of Medical Clinics was newly organized, December 4 and 5, in Washington, D. C. **Dr. Wallace M. Yater** was elected its first President.

The Association was founded for the following purposes:

1. To elevate the standards of practice in medical clinics
2. To foster and improve graduate medical education in such clinics

3. To promote medical research in such clinics
4. To give mutual help by the interchange of ideas and experiences of member clinics.

Forty medical clinics throughout the United States and Puerto Rico were approved as charter members. Any group of seven or more full-time physicians maintaining a private organization for the purpose of providing general medical care of high quality according to the Principles of Ethics of the American Medical Association are eligible for membership provided that five of the physicians practice five different major specialties, two of which are internal medicine and general surgery. An expert on organizing programs for graduate medical education will eventually be employed to aid member clinics in formulating their educational activities.

At the first meeting of the **Washington, D. C. Chapter of the American Academy of General Practice** the following officers were elected for the year 1949–50:

Dr. I. Phillips Frohman, *President;* Dr. William R. Stovall, *Vice President;* Dr. Sherman A. Thomas, *Secretary-Treasurer.*

Drs. William H. Spicer, Richard V. Mattingly, R. Lee Spire and Lewis A. Klein were elected to the Board of Directors.

The Prince Georges County Medical Society has elected the following officers for the fiscal year 1950:

Dr. William Brainin, *President;* Dr. Wolcott Etienne, *Vice President;* Dr. Samuel Sugar, *Recording Secretary;* Dr. Benjamin Miller, *Corresponding Secretary;* Dr. George Hageage, *Treasurer.*

The Section on Neurology and Psychiatry met in the Medical Society's Library, December 1. Following a brief business meeting, Dr. Pearce Bailey gave a report on the Fourth International Neurological Congress. The report was discussed by Dr. Webb Haymaker, who gave some additional remarks on his impressions of neuropathology in Germany. His discussion was illustrated by slides and photographs taken by himself and Drs. Bailey and Walter Freeman.

The Section on Otolaryngology held its second meeting of the year at the Army-Navy Town Club, November 22. Dr. Carleton C. Douglass, of Johns Hopkins University, was the guest speaker. He gave a paper on "Irradiation of the Nasopharynx."

Examinations were held by the **American Board of Psychiatry and Neurology,** December 5 and 6, at the New York Psychiatric Institute of Columbia Medical Center. The second largest group of psychiatrists to be accepted as qualified candidates to take the Board examinations were in attendance. Among the 112 examiners, representing all sections of the country, were the following from this area: Dr. Pearce Bailey, Colonel John M. Caldwell, Drs. Dale C. Cameron, Robert A. Cohen, Bernard A. Cruvant, Henry P. Laughlin, Robert P. Morse, George N. Raines and Harvey J. Tompkins.

Group Hospitalization, Inc. announces that the new increased rates, which were published in the November 1949 issue of the MEDICAL ANNALS, were effective on January 1, 1950 instead of December 1, as stated in the original announcement.

Washington Sanitarium and Hospital, Takoma Park, has become the twenty-first hospital in the Washington area to offer benefits under Group Hospitalization.

Mr. Basil O'Connor, President of the **National Foundation for Infantile Paralysis, Inc.,** asks the Editorial Board to remind its readers of the **1950 March of Dimes** campaign. Due to the widespread epidemic of 1949, all resources of the Foundation were pressed into service, and the epidemic treasury was emptied. The need is therefore urgent . . . more than the usual number of dimes is hoped for.

Dr. Skevos Zervos, Greek physician, an authority on "The Father of Medicine," has presented to the **George Washington University School of Medicine** a nine-foot replica of a Greek statue of Hippocrates, which dates back to the fourth century B.C. Dr. Walter A. Bloedorn, Dean of the Medical School, accepted the gift from Dr. Zervos in special ceremonies, December 7.

The original statue was found in the Dodecanese Islands, birthplace of Dr. Zervos, and now stands in Athens. A copy of it appears on one of the Greek postage stamps. The new statue will be placed in Hall A, the large general assembly room of the School of Medicine.

Suburban Hospital in Bethesda, built by the Government and operated for nearly seven years by the Suburban Hospital Association, Inc., was sold to the Association for $125,000. The hospital has a bed capacity of 100. The sale also includes a two-story nurses' home with quarters for 50 nurses and auxiliary rooms.

The hospital has been in operation since it was completed in March, 1943, at a cost of approximately $650,000. There are no contemplated changes in operating policy or in personnel. The Association plans no immediate expansion of facilities.

Francis W. Hill, an attorney, is President of the Association's Board of Trustees. Arthur B. Solon has served as Superintendent for the past five years.

A new movie on "Breast Cancer: The Problem of Early Diagnosis" has been released by its co-sponsors, the National Cancer Institute of USPHS and the American Cancer Society. The film was made in New York's Memorial Hospital cancer clinic, the largest in the world. Dr. Murray M. Copeland, Professor of Oncology at Georgetown University School of Medicine, gave a short address on "Professional Education in Medicine" before the première showing of the movie, which took place at the Hotel Statler, December 5.

The Orthopedic Guild held its annual meeting in Washington, November 25 and 26. Dr. Curtis Lee Hall, who was chairman for this meeting, arranged the program. The Guild, which has been in existence for about 12 years, is composed of 25 orthopedic surgeons from the United States and Canada. Meetings are held once a year, usually in November. The meeting opened at George Washington University Hospital. Greetings were extended by Dr. Brian Blades. Papers were presented during the morning session by Drs. Milton C. Cobey, William Tobin, Julius Neviaser, Carl Berg, Leonard Peterson, O. Anderson Engh, Frank Hand, Everett J. Gordon, Paul O'Donnell, Allan Lloyd and Colonel J. E. Ash, U.S.A.

An Orthopedic Clinic was held in the afternoon at the Naval Medical Center under the direction of Captain Frank Kreuz, U.S.N. On Saturday, November 26, physicians were invited to attend the Orthopedic Clinic at Walter Reed Hospital, under the direction of Colonel August Spittler, U.S.A.

Dr. Philip S. Hench, Professor of Medicine of the Mayo Foundation, Rochester, Minn., gave the principal address, January 4, at the **monthly medical meeting of the Surgeon General's Department of the Army.** His paper on "The Effects of the Adrenal Cortical Hormone, Cortisone, and of Pituitary Adrenocorticotropic Hormone on Rheumatoid Arthritis and Rheumatic Fever" was discussed by **Dr. Darrell C. Crain,** Consultant in Rheumatology at Walter Reed General Hospital.

The Washington Medical and Surgical Society met, November 28, at the Hotel 2400. Dr. William E. Bageant, the essayist, presented a paper on "Treatment of Anuria." The case report was given by Dr. R. P. Andrews.

Dr. J. Ross Veal will direct a research study of brain circulation and metabolism in coma at **Georgetown University School of Medicine.** Funds for the study, in the amount of $10,527, are part of a total of $358,109 in Public Health Service grants recently approved by the Surgeon General upon the recommendation of the National Advisory Heart Council. These funds are being distributed to universities, hospitals and other institutions to support heart research and to build additional heart research laboratory facilities.

Dr. Edward J. Steiglitz discussed preparation for retirement at the annual training course on Industrial Relations Counsellors at Williamsburg, Virginia, November 15.

He presented two papers before the Conference of Internists of the Southeastern Area of the Veterans Administration. The Conference was held at the Kennedy Hospital, Memphis, Tenn., November 19 and 20.

On December 12 and 13 he made teaching ward rounds and gave five lectures on geriatrics at the Tuscaloosa (Alabama) Veterans Hospital.

He served as consultant during a Conference on Research in Gerontology at Teachers College, Columbia University, New York, December 16 and 17.

Dr. Leslie M. Jones was recently certified by the American Board of Anesthesiology. He has also been admitted to fellowship in the American College of Anesthesiologists.

Chief Judge Bolitha J. Laws, of the United States District Court for the District of Columbia, Chairman of the District of Columbia American Bar Association Special Committee on Improving the Administration of Justice, has appointed a number of lay subcommittees to work in coöperation with his committee.

Dr. Winfred Overholser has been designated Chairman, and **Dr. William Earl Clark,** a member, of the subcommittee to "deal with program of persons charged with crime who are mentally unbalanced but not legally insane." Among specific subjects to be considered are: (1) the "constitutional psychopath"; (2) kleptomaniacs; (3) alcoholics.

Theodore Wiprud has been named to the subcommittee which will "recommend method of proof of scientific facts, such as questions in patent cases, negligence, malpractice and other cases."

Dr. William LeRoy Dunn has been appointed Acting Director of the Bureau of Tuberculosis by Health Officer Daniel L. Seckinger. He will serve until a successor to Dr. A. Barklie Coulter has been appointed. Dr. Dunn has been employed in the Bureau on a part-time basis since April 1, 1936, and does not desire full-time appointment as Director.

Dr. Erwin E. Nelson, of Arlington, has been named Medical Director for the Food and Drug Administration. He succeeds Dr. Robert T. Stormont, who is now Secretary of the Council on Pharmacy and Chemistry of the American Medical Association. In 1937 Dr. Nelson organized the pharmacology division in the Food and Drug Administration and served as its first director.

Major General Malcolm C. Grow, Surgeon General of the U.S. Air Force, retired November 30, after more than 31 years of military medical service. **Major General Harry G. Armstrong,** who has served as Deputy Surgeon General, is the new Surgeon General. General Hoyt S. Vandenberg, Chief of Staff (USAF), presented General Grow an oak leaf cluster to the Distinguished Service Medal. He was cited for his exceptionally meritorious service in promoting the study of aeromedicine, pioneering in the development of air-borne medical equipment, and initiating plans adopted by all the medical services for future deployment of mobilized medical personnel. General Grow, a graduate of Jefferson Medical College, is credited with much of the development of body armor, which saved many lives among combat airmen in World War II.

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, headed by Dr. Henry A. Grennan, through which requests for speakers for lay groups are filled.

Date	*Speaker*	*Subject or Title*	*Organization*
November 29	Dr. Henry P. Laughlin and Dr. Marshall deG. Ruffin, Commentator	Psychiatry and Staff Development	Society for Personnel Administration (Employee Development Section)
December 5	Dr. Daniel L. Seckinger	Home Treatment for Chronic Diseases	Dupont Circle Citizens' Association
December 7	Dr. David H. Kushner	Some Newer Advances in Obstetrics	Group from Beth Sholom Congregation
December 7	Dr. Edward A. Cafritz	Cancer	Highlands Jewish Center
December 15	Dr. James A. Gannon	Tuberculosis	Washington Junior Jewish Consumptives' Relief Society
January 24	Dr. Dorothy Donley-Dowd	Brother and Sister Relationship	Peyton Randolph Parent-Teachers Association

Dr. Thomas McPherson Brown, Chief of Medicine, **and Dr. Paul K. Smith,** Professor of Pharmacology, of George Washington University School of Medicine, have been named to the University's chapter of Phi Chi medical fraternity.

Dr. Brown, who is also director of the arthritis research unit of the Veterans Administration, has done extensive research into the cause and treatment of both rheumatic fever and Haverhill fever. Dr. Smith has done intense studies of the cause and treatment of motion sickness, an assignment undertaken for the Air Corps at their medical center at Randolph Field. He is a member of the National Research Council.

Dr. Everett J. Gordon has been elected to fellowship in the American Academy of Orthopedic Surgeons. During the annual convention of the United States Chapter of the International College of Surgeons, he served as Secretary of the Orthopedic Section.

Dr. Margaret Nicholson, who is Chairman of the AMA Section on Pediatrics, was the official delegate from the United States to the Second Pan American Pediatric Congress which was held in Mexico City, November 1 to 4. Dr. Nicholson is one of six chosen to represent the United States at the International Pediatric Congress to be held in Zurich, Switzerland, July 28–30, 1950.

Dr. Frank S. Caprio gave a lecture entitled "Psychosomatic Ailments Associated with Sexual Pathology" before the Fairfax County Medical Society at Falls Church, Virginia, November 25.

Mr. F. Royce Franzoni, an Associate member of the District Medical Society, was a member of a special Government commission which recently made a tour of inspection of the field of pharmacy in occupied Japan. He gave an interesting description of this trip before the monthly meeting of the District of Columbia Pharmaceutical Association, December 13.

Drs. Alfred Brigulio, Brooks Brown and Everett J. Gordon recently completed an intensive course in the Medical Aspects of Nuclear Energy at the Army Medical Center.

BOOK REVIEWS

Clinical Biochemistry, 4th ed. ABRAHAM CANTAROW, M.D., Professor of Biochemistry, Jefferson Medical College, and Assistant Physician, The Jefferson Hospital, Philadelphia, AND MAX TRUMPER, PH.D., Commander, H (S), U.S.N.R., Lecturer in Clinical Biochemistry and Basic Science Coördinator, Naval Medical School, National Naval Medical Center, Bethesda, Maryland. Price, $8.00. Pp. 642, with 38 figures. Philadelphia: Saunders, 1949.

The authors attempt to present current biochemistry as it applies to diagnosis and treatment. In this edition they have made extensive revisions—especially in acid-base balance, metabolism, and adrenocortical function.

Controversial material is presented (well documented with footnotes to original articles), and yet wherever possible, the authors leave you with their own evaluation.

Each subject is discussed fairly completely (both normal and abnormal function), wherever possible in terms of over-all reactions, omitting interim steps unless pertinent. Complete bibliographies follow each chapter, and the index is unusually good.

The last chapter is interesting because it lists disease states and tabulates the abnormal functions, indicating the pages on which they are discussed.

This book definitely helps "to bridge the gap between abstract biochemistry or physiology and clinical medicine," as the authors hoped.

N. J. C.

A Textbook of Surgery, 5th ed., by American Authors. Edited by FREDERICK CHRISTOPHER, B.S., M.D. F.A.C.S., Professor of Surgery, Northwestern University Medical School; Chief Surgeon, Evanston (Illinois) Hospital. Price, $13.00. Pp. 1550, with 1465 illustrations on 742 figures. Philadelphia: Saunders, 1949.

This new edition of what is probably the most widely used surgical textbook in this country is, as were the previous editions, written under the general plan of presenting only tried and true principles and methods of surgery. The subsections of various chapters are written by different authorities who were chosen because of outstanding knowledge in the subjects which they have presented. Debatable and incompletely tried methods are not included. The arrangement of contents has been slightly altered. The sections on Shock, Acidosis and Alkalosis, and Water and Electrolyte Balance have been moved to the early part of the book. The sections on the Motor Skeletal System have been grouped together.

In all, there are 198 contributors including Dr. Christopher. There are 30 entirely new sections in this edition, and although the entire book has been brought up to date with relatively minor changes, extensive changes or revisions by a new author were made in the following sections: Chemotherapy of Surgical Infections, Pathology and Repair of Fractures, Fractures of the Femur, Operative Treatment of Fractures, Injuries and Surgical Infections of the Eyes and Adnexa, Tumors of the Stomach, Anomalies of the Small Intestine and of the Bile Ducts, Aseptic Surgical Technic and Management of the Surgical Diabetic Patient. It remains a good standard textbook for the medical student, general practitioner and the general surgeon.

P. R.

Directory of Psychiatrists and Clinical Psychiatric Facilities in the Washington Area (Revised Edition). Compiled and edited by HENRY P. LAUGHLIN, M.D. Price, paper, $1.00. Pp. 46. Washington, D. C.: Washington Psychiatric Society, 1949.

Dr. Henry P. Laughlin, the energetic Secretary of the newly organized Washington Psychiatric Society, has rendered a valuable service to the medical profession and the public of the Washington Area.

This directory lists the startling number of 273 psychiatrists in this area engaged in private practice or holding Government positions. Data are furnished as to membership in the local medical societies, the Washington Psychiatric Society, the Washington Psychoanalytic Society and the American Psychiatric Association; the possession of a diploma from the American Board of Psychiatry and Neurology; the address and telephone number; whether the physician is in private practice; medical school faculty appointments. In addition data are provided as to staff, hours, location, etc. of the 19 clinical facilities now operating.

The directory is welcome, especially in view of the rapidly developing interest in psychiatry.

WINFRED OVERHOLSER, M.D.

WILLIAM CREIGHTON WOODWARD, M.D., LL.M., LL.D.
(1867–1949)

The long and distinguished medico-legal career of Dr. William Creighton Woodward came to a close, December 22, 1949. His health had failed during the past year and he died a few days after entering Doctors Hospital. He was one of the country's foremost authorities on medical jurisprudence, having retained his interest in this field after his retirement, particularly as it related to the rights and protection for the mentally ill. He lived at 2701 Connecticut Avenue, N.W.

Dr. Woodward was born in Washington, D. C., December 11, 1867, the son of Mark Rittenhouse and Martha Jane Pursell Woodward. He received both his medical and law degrees from Georgetown University, the first in 1889, his Master of Laws in 1900, and his LL.D. degree in 1925.

He served as resident physician and superintendent of the old Central and Emergency Hospital from 1891 to 1892; the next year he was physician to the poor, and the following year, Coroner. In 1894, when only 27 years old, he was appointed Health Officer for the District of Columbia, and he held that position until 1918. During many of these years, 1896–1906, he was Secretary of the Board of Medical Supervisors of Washington, D.C. During the first World War he was a member of the General Medical Board of the Council on National Defense, 1917–18, and a member and executive officer of the D. C. Board of Appeal of the U. S. Selective Service, 1917–18.

WILLIAM C. WOODWARD, M.D.

Dr. Woodward was admitted to the District of Columbia Court of Appeals in 1901, to the U. S. Supreme Court in 1917, and to the Supreme Judicial

Courts of Massachusetts (1919) and Illinois (1924). During his early career in Washington he was on the faculty of Georgetown University, in both the Medical and Law Schools, from 1893 to 1936, as Professor of Medical Jurisprudence. He held the same professorship at George Washington University School of Medicine, from 1900 to 1918; at Howard University, 1916 to 1918; and at Loyola University, Chicago, from 1925 to 1931. From 1930 to 1939 he was professorial lecturer on medical jurisprudence at the University of Chicago Graduate School of Medicine and Rush Medical College.

Leaving Washington in 1918, he served for the next four years as Health Commissioner for Boston. He then withdrew from the field of public health to devote the remainder of his life to medical law. From Boston he went to Chicago to become Director of the Bureau of Legal Medicine and Legislation at the Headquarters of the American Medical Association. In 1939 he retired from that position and returned to the District of Columbia.

Dr. Woodward became a member of both the Medical Association and the Medical Society of the District of Columbia in 1892. When he left Washington to take his new position in Boston he transferred to Associate membership. He was elected an Honorary member of the District Medical Society in 1936. However, in his membership as in his life, Dr. Woodward did not seek "honorary" status; at his request, in 1943 he reverted to Active membership, which he held until his death. In a letter to the Secretary written early in 1945 he complained that "the only fault I find with active membership is that it is not active enough," and concluded with, "if, without honor, glory, or emoluments of any kind, other than self-satisfaction in service rendered, I can be a more active member in fact as well as in name, the better I shall like it." The Executive Board expressed its appreciation of this gracious offer and the Society was glad to avail itself of his valuable services.

Dr. Woodward maintained his Fellowship status in the American Medical Association continuously from 1894. He was a member and Past President of the American Public Health Association, the Conference of State and Provincial Boards of Health of North America, and the American Association for Study and Prevention of Infant Mortality. He was a member of the Massachusetts Medical Society from 1918 to 1940 and of the Chicago Institute of Medicine, from 1928 to 1940. He was a member of the District and American Bar Associations, and after his retirement was active in the committee work of both.

He leaves his wife, Mrs. Ray Elliott Woodward, whom he married in 1895; two daughters, Miss Elinor Woodward, who resides at 2701 Connecticut Avenue, and Mrs. Mildred W. Jones, of Drexel Hill, Pa.; and a son, Paul G. Woodward, of Parkersburg, W. Va. A sister, Mrs. Mary W. Pitts, lives in Cleveland.

ARCHIBALD BARKLIE COULTER, A.B., M.D.

(1897–1949)

Dr. A. Barklie Coulter, Director of the District Health Department's Bureau of Tuberculosis, died December 7, 1949, at his home, 2136 LeRoy Place, N.W. He had been in ill health for the past two years and had just returned to his home after a month's stay in Doctors Hospital.

Dr. Coulter was born in Baltimore, Md., March 24, 1897, the son of Carlton Coulter, who survives him, and Nancy Dugan Coulter. He attended Mt. St. Mary's College in Emmitsburg, Md., and received his A.B. degree from Catholic University in 1918. He served in the Army during World War I in various posts in the United States. Following the War he enrolled at Johns Hopkins University Medical School, but his studies were interrupted when he fell victim to tuberculosis and became a patient at Trudeau Sanatorium at Saranac Lake, New York. In two years he returned to complete his medical training and was awarded his degree in medicine in 1924.

His own illness gave him a goal in life, a fight against the spread of tuberculosis, toward which he bent his efforts relentlessly. He served his internship at Trudeau Sanatorium, the Royal Victoria Hospital in Montreal, and the Peter Bent Brigham Hospital in Boston. After a year and a half in Boston devoted to study and public health work he came to Washington in 1928 to practice medicine.

Dr. Coulter served as physician-in-chief at Gallinger Municipal Hospital in 1930 and 1931. In 1934 he volunteered his services as director of the Health Department's tuberculosis "case-finding" program, which was financed by a Federal grant under WPA. In 1936 he was recommended by Health Officer Ruhland to head the Tuberculosis Bureau. He was one of the leaders in the move for mass X-rays, a program that is now accepted procedure.

Since he became an Active member of the District Medical Society in 1928, he has served almost continuously on the Society's Subcommittee on Tuberculosis. He was a Fellow of the American Medical Association, and a member of the Medico-Chirurgical Faculty of the State of Maryland, the American College of Chest Physicians, the American Trudeau Society, the Pan American Medical Association, and the American Public Health Association. He was a member of the Cosmos Club and the Harvard Club of Boston.

Dr. Coulter never married. Surviving, besides his father, are two brothers, Philip Coulter, of Baltimore, and Colonel Carlton Coulter, Jr., who is stationed in Japan.

In an editorial entitled, "A Gallant Crusader," the *Evening Star* paid high tribute to Dr. Coulter for his efforts in behalf of tuberculosis victims. It credited him with securing increased appropriations for the Bureau, from $36,000 in 1936 to approximately $192,000 for 1949. Beginning with a department which consisted of 9 full-time and 10 part-time employes, and 3 tuberculosis nurses, he developed its activities until it now has a personnel of 33 full-time and 18 part-time employes, and a corps of 28 nurses. In addition to organizing the recent tuberculosis survey for the Metropolitan Area, he was instrumental in enlarging the city's hospital facilities for tuberculosis patients, and in working for other health measures along similar lines.

Two paragraphs from this editorial are quoted verbatim:

"Poor health for several years past kept the name of Dr. A. Barklie Coulter out of the news. But his death on Wednesday evening must have recalled to many old friends the militant young health crusader of twenty years ago whose earnest eloquence helped shock Congress and the community into a realization of neglect, in the care and treatment of victims of tuberculosis, which brought immediate response. A young man then, who had recovered from the disease himself, Dr. Coulter was absolutely fearless in undertaking a fight in behalf of victims of this plague and relentless in his determination to overcome inertia and lack of interest on the part of others....

"Always frail in health, but with a dogged drive that kept him going, he probably did more in his lifetime than any other single person to improve the care and treatment of the victims of tuberculosis in this community. But the work to which he set himself was far from done when he died and not long ago he developed the grim facts that of 2,500 active cases of the disease in Washington, only 987 are hospitalized—leaving 1,543 without available hospital facilities. Largely due to his own efforts, the work to which he devoted his life will go on. There have been few gallantly courageous fighters more deserving of the gratitude of his fellows."

A. BARKLIE COULTER, M.D.

Environmental Factors of Cancer—Hueper

(*Continued from page 16*)

causes of cancer it is essential that other public and private agencies directly or indirectly concerned with this problem join in these efforts. The members of the medical profession can play an important role in this respect, since they have direct access to the patient and are competent and trained to evaluate medical evidence that may lead to the discovery of environmental cancer hazards. The active interests of the medical profession should go a long way in guiding the human society out of one of the most serious health problems it is presently confronted with.

Chemotherapy of Cancer—Burchenal

(*Continued from page 19*)

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Sigmund Freud—Podolsky

(*Continued from page 28*)

pleasure and avoid pain. . . . For sociology which deals with the behavior of man in society can be nothing other than applied psychology."

Thus Freud regarded social situations as the expression of people's ideas or unconscious strivings. From this point of view, war is the expression of aggressive instincts, and social feeling the expression of latent sexual feeling.

2. Another of Freud's contributions was in compelling the realization that the child was psychically utilizing and actively living out influences previously regarded as casual agents. Our understanding of the biologic basis of human behavior received its major impetus from Freud. The influence of sucking activity, of bowel and urinary function are now viewed in the terms of personality formation.

3. Freud's contribution to the understanding of the sense of guilt is of great value in understanding criminal tendencies. Freud found that "The sense of guilt was present prior to the transgression." He believed that this sense of guilt arises from the Oedipus complex. He felt that there must be criminals without a sense of guilt, who had no moral inhibitions, or who considered themselves "justified in their deeds by their conflict with society."

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RIB PUNCTURE: COMPARISON WITH THE STERNAL SITE FOR OBTAINING BONE MARROW*

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THERE have been a number of papers recently attesting the value of marrow aspiration from other than the conventional site in the sternum. Van den Berghe and Blitstein[1] and Rubenstein[2] have written of iliac crest punctures. Loge,[3] and Huss, Gilbert and Liebow[4] have advocated the spinous process; Rheingold, Weisfuse and Dameshek[5] have added confirmatory evidence on the use of multiple sites, and recently Propp, Gorham and Kantor[6] have used the rib puncture in investigation of cases of multiple myeloma.

This paper summarizes our results in the use of rib puncture as an additional site for obtaining adequate sampling of marrow. The advantages of additional satisfactory sites have been detailed elsewhere.[5] Suffice it to say that marrow from another site aids the physician who finds the sternal sample unsatisfactory or believes that another site might yield or confirm important evidence. From the patient's viewpoint repeated procedures are less objectionable when multiple sites are used.

The patients used in this study were a con-

TABLE 1

Diagnoses of the 25 Unselected Patients on Whom Both Sternal and Rib Punctures Were Done

NO. OF CASES		CASE NOS.
3	Untreated Hodgkin's disease	(1, 2, 17)
1	Treated Hodgkin's disease	(14)
4	Reticulum-cell sarcoma	(3, 5, 7, 21)
2	Lymphosarcoma	(4, 10)
1	Lympho-epithelioma, nasopharynx	(9)
1	Lymphoma, undetermined type	(23)
2	Lymphatic leukemia, chronic	(12, 18)
2	Myelogenous leukemia, chronic	(6, 13)
1	Fibrosarcoma, nasopharynx	(8)
1	Hemolytic anemia, congenital	(25)
1	Purpura, rheumatic, Schönlein	(16)
1	Subacute combined system disease	(19)
1	Pulmonary tuberculosis	(15)
1	Rheumatoid arthritis	(22)
1	Lymphocytosis, mild	(20)
1	Polycythemia, mild, secondary	(11)
1	Normal	(24)

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* From the Department of Pathology, Walter Reed General Hospital, Washington, D. C.

TABLE 2

Comparison of Rib and Sternal Marrow by Differential Count

COLOR, SEX	AGE	CASE	MYELOBLASTS	PROMYELOCYTES	MYELOCYTES—NEUTROPHILIC	MYELOCYTES—EOSINOPHILIC	MYELOCYTES—BASOPHILIC	METAMYELOCYTES—NEUTROPHILIC	METAMYELOCYTES—EOSINOPHILIC	BAND FORMS	P.M.N. NEUTROPHILS	P.M.N. EOSINOPHILS	P.M.N. BASOPHILS	LARGE LYMPHS	LYMPHOCYTES	PLASMA CELLS	RETICULUM CELLS	MITOTIC FIGURES	MEGAKARYOCYTES	PRONORMOBLASTS	NORMOBLASTS—BASOPHILIC	NORMOBLASTS—POLYCHROMATIC	NORMOBLASTS—ORTHOCHROMATIC
WM	30	(1) R	1.2	3.4	10.4	2.4	0.2	32.2	1.8	5.0	12.0	0.6	—	—	7.8	0.6	0.4	0.2	—	0.8	1.8	8.0	5.2
		S	1.0	2.6	13.8	1.4	—	37.2	2.0	5.8	19.4	0.6	—	—	2.0	0.8	0.4	0.2	—	0.6	1.6	6.6	3.0
WM	25	(2) R	1.0	2.8	17.2	2.4	—	30.8	1.6	2.6	15.2	1.6	0.2	—	6.0	1.6	2.2	0.6	0.8	0.4	3.2	5.8	4.0
		S	0.4	2.0	12.6	0.6	—	35.6	2.2	3.4	17.6	1.6	—	—	9.6	1.0	1.0	0.4	0.6	—	1.6	8.4	1.4
WM	23	(3) R	3.8	4.8	9.0	1.8	0.8	17.8	1.8	7.0	5.0	0.6	—	—	2.2	1.8	0.8	0.4	1.2	3.6	5.2	24.2	8.2
		S	1.0	1.8	8.8	2.8	1.0	24.0	2.0	4.6	9.2	2.2	—	—	8.2	1.6	1.2	0.6	0.4	1.6	3.4	16.4	9.2
WM	24	(4) R	1.6	4.2	7.7	1.8	—	24.1	1.6	2.6	34.6	1.6	—	—	14.8	0.8	0.2	0.2	0.2	0.4	0.4	2.2	1.0
		S	1.2	2.6	4.6	1.2	—	30.8	2.0	2.2	16.6	1.4	0.2	—	11.0	3.0	0.2	0.8	1.2	0.8	4.0	11.6	4.6
WM	27	(5) R	0.8	3.0	9.4	0.6	—	38.0	1.0	10.6	13.0	0.8	—	—	3.4	0.8	0.4	0.8	0.4	0.4	2.0	6.2	8.4
		S	0.8	2.4	13.2	0.4	—	24.0	1.8	13.4	13.6	1.2	—	—	4.0	1.0	—	0.6	0.4	0.8	3.4	9.8	8.8
WM	35	(6) R	1.8	4.6	9.4	2.2	0.6	43.2	1.4	0.4	19.2	1.0	0.4	—	1.0	—	0.8	0.8	1.0	0.2	2.0	8.2	1.8
		S	1.2	1.8	20.0	1.0	0.8	37.4	1.4	1.8	19.6	0.2	0.2	—	1.0	0.2	0.2	1.0	1.4	0.4	2.4	7.6	0.4
WM	29	(7) R	1.6	4.8	9.2	1.6	0.2	31.4	3.2	0.8	9.8	1.4	—	—	4.4	2.2	1.2	1.0	0.2	1.2	4.8	12.0	9.0
		S	2.2	3.6	11.0	1.6	0.4	30.4	1.6	2.2	12.6	1.8	—	—	5.4	3.6	1.2	0.4	0.2	0.8	2.8	11.2	7.0
WM	32	(8) R	0.8	2.6	7.8	1.4	0.2	42.8	0.6	2.6	17.2	0.2	—	—	6.6	1.2	—	0.6	0.2	0.8	2.0	10.6	1.8
		S	1.4	1.8	12.0	1.4	—	25.4	1.2	3.0	20.6	2.6	—	—	11.4	1.6	0.8	1.4	—	0.8	1.0	7.0	6.6
WM	24	(9) R	2.4	2.8	7.6	1.6	0.6	24.2	2.2	7.2	16.8	3.2	0.2	—	6.2	0.2	0.6	0.4	0.8	2.4	4.0	13.8	2.8
		S	3.4	3.2	9.4	3.2	0.2	19.8	4.2	6.4	14.6	3.2	—	—	6.2	1.0	0.2	1.0	—	2.4	3.2	13.0	5.4
WM	39	(10) R	1.6	3.2	15.4	3.6	0.2	20.6	6.2	3.8	2.0	1.8	—	—	7.2	0.6	0.8	0.2	0.2	3.8	3.2	15.2	10.4
		S	1.0	2.6	17.6	3.6	—	29.6	5.6	4.0	0.8	0.6	0.4	—	3.8	0.8	—	—	—	4.4	2.4	10.8	12.0
WM	20	(11) R	1.4	2.8	8.4	0.6	—	24.8	0.8	11.6	13.6	2.0	0.6	—	9.2	1.0	2.6	0.2	—	0.4	1.2	13.0	5.8
		S	1.6	2.2	8.8	1.2	0.2	21.6	2.6	7.8	13.6	1.4	—	—	7.4	0.4	1.2	0.2	0.8	1.2	1.6	19.4	6.8
CF	70	(12) R	—	—	1.4	—	—	3.8	—	—	10.6	—	—	86.0	—	—	—	—	—	—	—	—	—
		S	0.8*	1.0	2.6	0.2	—	5.6	0.2	—	11.0	0.6	0.2	71.6	1.6	—	0.4	0.2	few	—	0.4	2.4	0.8
WF	28	(13) R	0.6	3.6	14.4	0.2	0.8	33.8	3.0	14.4	19.8	1.2	0.6	—	0.6	0.2	0.6	0.6	—	0.2	0.6	1.0	3.0
		S	1.0	8.6	31.8	1.0	0.6	7.0	1.6	3.6	21.0	—	—	—	0.2	—	—	0.2	—	—	0.2	0.6	1.8
WF	27	(14) R	0.6	2.6	9.0	0.8	0.2	41.4	2.2	1.4	12.8	3.0			7.4	1.6	0.4	—	0.2	0.4	1.4	13.6	1.0
		S	0.8	2.4	7.2	0.6	—	32.4	1.4	2.2	17.6	1.8	—	—	7.2	1.0	0.8	0.4	0.6	0.6	2.8	11.8	8.4
WF	48	(15) R	0.6	1.6	10.2	1.0	0.4	18.4	0.6	2.4	20.8	0.8	0.4	—	10.6	3.2	1.2	—	0.6	2.0	5.0	17.0	4.0
		S	—	1.2	10.8	0.2	—	18.2	0.2	2.6	38.0	0.8	—	—	16.2	1.4	—	—	0.6	—	1.4	6.4	2.0
WM	21	(16) R	1.4	3.0	10.0	2.2	—	31.6	1.2	4.6	11.4	0.6	—	—	6.8	1.6	0.8	1.0	0.4	1.4	3.2	12.8	6.0
		S	0.8	3.0	12.6	0.8	0.2	34.4	1.2	3.6	14.2	0.6	—	—	5.8	1.4	1.0	1.2	0.4	0.8	2.8	12.6	2.6
WM	19	(17) R	—	0.8	4.2	—	—	30.4	—	33.6	1.4	0.8	—	—	4.4	—	0.8	—	—	0.4	0.8	11.6	4.8
		S	0.4	2.8	8.2	—	—	36.0	—	24.4	10.8	0.8	—	—	3.6	0.8	1.2	—	—	—	0.5	8.1	2.4

TABLE 2—*Continued*

COLOR, SEX	AGE	CASE	MYELOBLASTS	PROMYELOCYTES	MYELOCYTES—NEUTROPHILIC	MYELOCYTES—EOSINOPHILIC	MYELOCYTES—BASOPHILIC	METAMYELOCYTES—NEUTROPHILIC	METAMYELOCYTES—EOSINOPHILIC	BAND FORMS	P.M.N. NEUTROPHILS	P.M.N. EOSINOPHILS	P.M.N. BASOPHILS	LARGE LYMPHS	LYMPHOCYTES	PLASMA CELLS	RETICULUM CELLS	MITOTIC FIGURES	MEGAKARYOCYTES	PRONORMOBLASTS	NORMOBLASTS—BASOPHILIC	NORMOBLASTS—POLYCHROMATIC	NORMOBLASTS—ORTHOCHROMATIC
WM	79	(18) R	1.0*	—	—	—	—	3.4	—	2.4	0.2	0.2	—	—	90.4	0.6	—	—	—	—	0.2	0.8	0.8
		S	2.4*	—	—	—	—	2.8	—	1.6	0.4	0.6	—	—	91.2	—	—	—	—	—	—	0.6	0.4
WF	47	(19) R	0.4	0.4	2.2	—	—	23.0	1.0	32.0	9.0	2.6	—	—	4.4	—	0.5	—	—	2.0	2.0	11.1	9.4
		S	1.0	1.3	—	—	—	24.7	1.0	28.5	11.5	0.5	—	—	6.1	—	1.4	—	—	2.5	1.0	12.0	8.5
WM	21	(20) R	—	1.0	3.1	—	—	25.0	1.0	18.5	25.0	0.5	—	—	3.1	0.8	2.4	—	—	0.5	1.5	10.2	6.8
		S	—	0.4	0.4	—	—	23.4	0.6	18.4	20.0	0.4	—	—	9.4	1.0	0.8	—	—	—	1.4	10.0	13.8
WM	37	(21) R	1.0	1.4	2.0	—	—	21.2	3.4	20.0	6.8	3.0	—	—	4.0	2.0	1.2	—	—	0.4	4.0	14.8	14.8
		S	—	—	5.2	—	—	24.2	2.4	14.6	7.6	1.6	—	—	9.2	1.2	1.6	—	—	0.8	3.6	14.4	13.6
WM	24	(22) R	0.5	1.0	0.5	—	—	23.6	0.4	25.2	12.0	—	—	—	4.2	2.0	0.5	—	—	1.5	3.1	11.5	14.0
		S	0.8	0.5	1.0	—	—	20.6	0.5	32.5	4.2	1.0	—	—	9.2	1.0	1.0	—	—	—	2.6	11.5	13.6
WM	33	(23) R	1.6	3.2	7.4	2.4	0.2	24.8	0.6	0.6	11.2	1.0	—	—	4.2	0.4	2.6	1.2	0.2	1.0	6.2	26.4	6.8
		S	1.4	3.4	11.6	1.0	0.2	23.6	2.2	2.0	10.0	1.0	—	—	6.4	0.2	3.4	1.0	0.2	0.6	3.6	18.0	10.0
WM	51	(24) R	1.0	2.0	8.6	0.6	—	30.0	1.0	3.0	13.6	1.8	0.2	—	9.4	0.6	0.6	0.6	0.2	1.0	1.2	18.2	6.4
		S	1.0	1.8	9.2	1.2	—	29.4	2.8	2.2	13.2	—	—	—	5.6	1.8	1.0	0.6	0.2	0.8	3.0	20.8	5.4
WM	20	(25) R	1.4	1.8	5.4	1.6	—	15.6	1.6	0.4	9.0	1.4	0.4	—	9.8	—	1.2	1.2	0.2	1.0	3.8	29.4	14.4
		S	1.4	2.0	8.2	0.8	—	19.2	2.0	0.8	10.8	1.8	0.2	—	10.2	0.4	0.6	0.8	0.4	0.8	2.8	28.8	8.0

* Lymphoblasts.

secutive series hospitalized in a hematology-lymphoma ward and from whom marrow was required for study (table 1). The usual procedure was to puncture the right sixth rib, approximately in the midaxillary line. Any of the prominent ribs in this area may be utilized for this purpose, the only requisite being that the rib be easily delineated by the thumb and forefinger. The usual type of styletted needle was used for both the rib and sternal punctures. The area about the lower right rib cage was prepared with iodine and alcohol. The skin, subcutaneous tissue and periosteum of the rib were infiltrated with novocaine. It was found advisable to grasp the rib selected between the thumb and forefinger and maintain such a position during the infiltration, while waiting for anesthesia, and during puncture. By so doing, one fixed the position which had been injected and obviated the possibility of doing the puncture in a site other than the one anesthetized, since the soft tissues over the rib are so freely movable. The bone-marrow needle was then pushed into the rib (figures 1 and 2). A distinct sense of "give" was felt and at that time the stylette was removed, a 10 c.c. dry syringe was attached, and a small amount (0.1 to 0.3 c.c.) of marrow quickly aspirated. Smears were made by depositing the marrow on a clean slide. The slide was tilted so that the blood ran off, leaving flecks of marrow behind. Several of these flecks were picked up on the end of a slide and gently smeared on a third slide. They were then stained with Wright's stain, and 500 cells were counted. Cover slide preparations were prepared by the usual method.

In order to prepare the sections for figure 3, the following procedure was used: At autopsy unfixed specimens of bone (rib, sternum, iliac

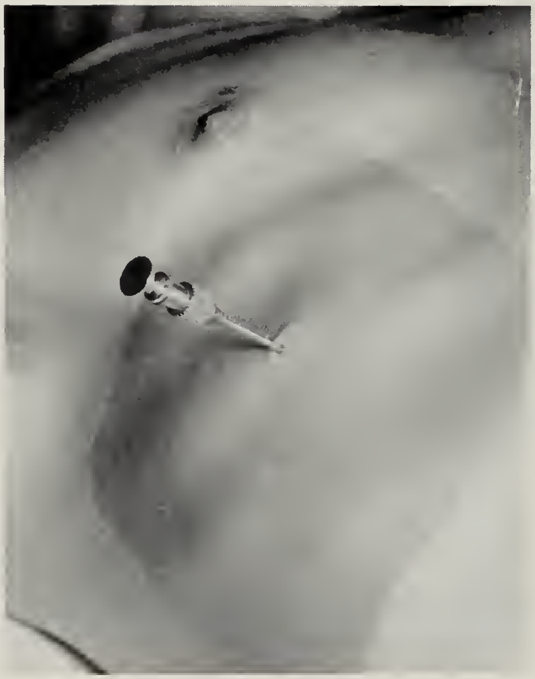

FIG. 1. Bone marrow needle in position in sixth rib in anterior axillary line at termination of puncture.

crest, spinous process) were incubated for 48 hours in nutrient broth simultaneously inoculated with E. coli and then washed with running tap water for 48 hours. They were then incubated in 10 per cent ammoniacal silver nitrate solution for 72 hours, following which they were decalcified in 1 per cent chromic acid and 1 per cent hydrochloric acid for 24 hours. Sections 4 to 6 millimeters thick were imbedded in the usual manner, and microtome sections were stained with iron hematoxylin.

DISCUSSION

Table 2 compares the results of rib and sternal marrow studies. As might be expected from com-

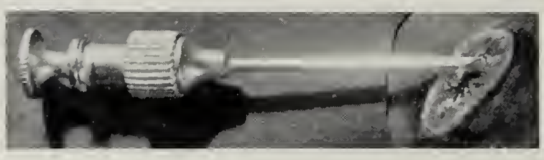

FIG. 2. Bone marrow puncture needle placed over cross-section of rib to show relationship of needle to marrow cavity.

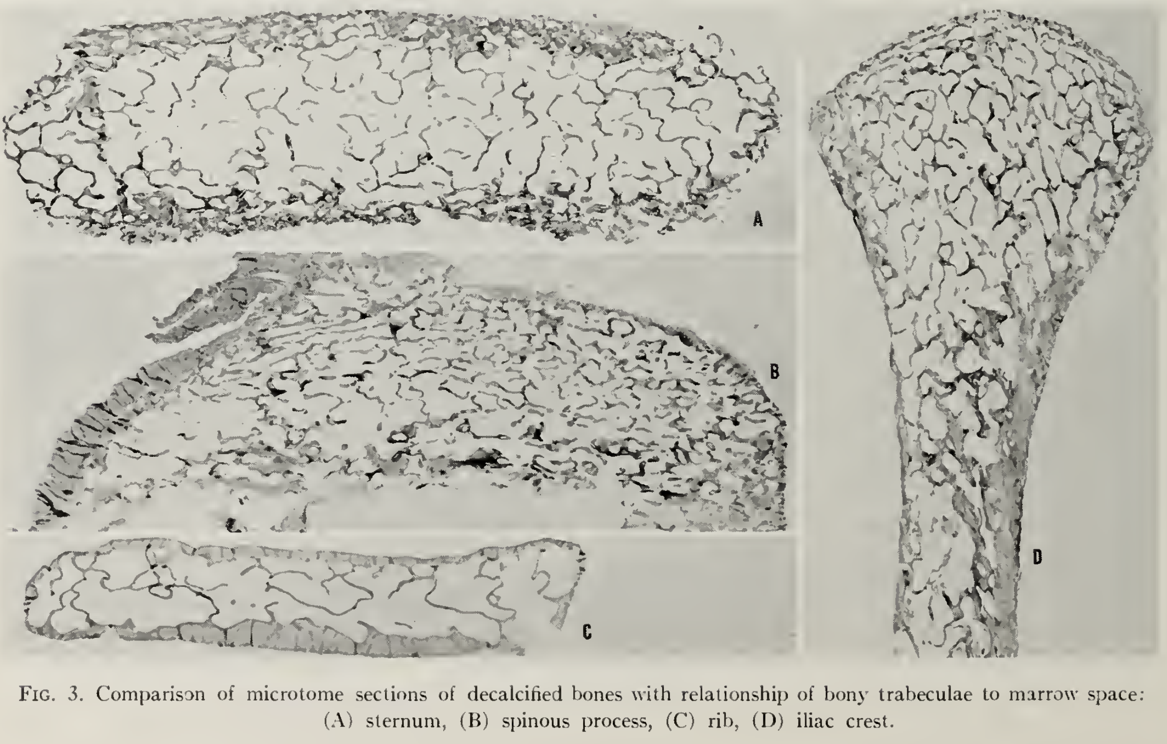

FIG. 3. Comparison of microtome sections of decalcified bones with relationship of bony trabeculae to marrow space: (A) sternum, (B) spinous process, (C) rib, (D) iliac crest.

parison of marrow from other sites, very similar results are found in regards to cellularity, general microscopic appearance, and actual differential count. In 1 case (chronic lymphatic leukemia) the marrow from the rib was an inferior specimen for differential counting purposes. With the exception of 1 person, all patients felt they would prefer the rib site to the sternum. The puncture can be done with ease, generally requiring less pressure than in the sternum, and because of the underlying structures we believe it to be less hazardous. We do not mean to propose the rib site as a substitute for sternal puncture, but, as with other sites, recommend it as a valuable aid in the investigation of hematologic disease, in the follow-up of therapy, and in situations where multiple punctures are indicated.

Since we were interested in the relationship between bony trabeculation as related to marrow space, sections were prepared as described. Considering the number of trabeculae present, these appear least in the rib, next least in the sternum, and more numerous in the iliac crest and vertebral spines.

Summary

In 25 consecutive patients punctures of both the sternum and a rib were done and examined. The results were closely similar, and it is suggested that the rib be added to the list of additional sites for obtaining satisfactory marrow sampling.

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METABOLIC ASPECTS OF URINARY CALCULI*

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THE diagnosis of urinary calculus invariably suggests the possibility of a disturbance in calcium metabolism. This is justified because metabolic calculi consisting of cystine, xanthine, or uric acid are relatively uncommon (table 1). Hyperparathyroidism, usually the first disease to be considered, must of course be ruled out, but there are many other disorders of calcium metabolism of significance in the pathogenesis of kidney stones.

TABLE 1

Frequency of Various Types of Urinary Calculi†‡

TYPE OF STONE	RANDALL[1]		KRETSCHMER[2] URETER	LATOWSKY[3] ENTIRE URINARY TRACT	MCINTOSH[4] ENTIRE URINARY TRACT
	Kidney	Ureter			
Calcium-magnesium phosphate	39	49			
Calcium phosphate-carbonate					9
Calcium phosphate			47	13	
Calcium oxalate	11	39	39	33	50
Calcium carbonate	4	4	6	14	
Triple phosphates	7		4		
Magnesian§					29
Cystine	4	1	3	2	1
Uric acid and urates	6	7	1	10	11
Miscellaneous pure stones			2	6	
Mixed stones	80	59		72	
Totals	151	159	102	150	100

† Reprinted, with permission of the publisher, from Jeghers, H., and Murphy, R.: Practical aspects of oxalate metabolism.[17]

‡ The classification of stones varied with each author. Pure stones were generally considered to be those with a predominance of one or in some cases 2 elements. McIntosh's classification is chiefly based on the presence or absence of the metallic elements.

§ Magnesian stones contain not only calcium carbonate and calcium phosphate but also magnesium and ammonium.

A number of factors are important in the formation of all types of renal calculi. Urinary stasis, vitamin A deficiency, urinary tract infection, disorders of magnesium metabolism, citric acid excretion, and, in connection with the last, production of the estrogenic hormone have been considered as having a strong influence on the formation of stones.[5, 6, 7] Because the urine contains a far greater amount of precipitable material than could be held in solution in an equivalent volume of water, the presence of "colloid" substances in the urine has been deemed important in the prevention of calculus formation.[8] These factors may be significant, but they are difficult to evaluate and almost impossible to study in detail. Two variables, however, are important, for they are implicated in renal stone formation in many instances, and, of greater significance, they can be measured. The concentration of the stone-forming crystalloids in the urine is one variable and the pH of the urine is the other.

It may be assumed that if the urinary concentration of crystalloids rises to a sufficient degree the salts of these substances will be precipitated. Likewise, on the basis of the insolubility of some of these salts in either an acid or an alkaline medium, if the urinary pH changes to a sufficient degree even normal amounts of crystalloids cannot be held in solution. If both factors are affected, stone formation is even more likely. The presence of a disturbance in any of the subsidiary factors mentioned above may augment a slight increase of crystalloid concentration or change of urinary pH to the degree where the formation of calculi will occur.

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The crystalloid of major importance for our discussion is calcium. For appreciation of the role of calcium in renal lithiasis it must be realized that the skeleton is not the stiff, heavy, inanimate structure first encountered by the medical student in the anatomy laboratory. Bone is a living tissue constantly undergoing the processes of destruction and reparation. There are 2 main components of bone, the framework or osteoid matrix, which is a protein tissue, and the inorganic salts, which are deposited in and around this matrix. Disturbances of the laying down or withdrawal of lime salts often affect serum and urinary calcium. Equally important is the fact that changes in the osteoid matrix will secondarily affect these lime salts. The physiologic maintenance of bony tissue depends upon a normal amount of bodily activity. Irrespective of the basic disease, lack of a proper amount of stress on the bones will give rise to a secondary effect, usually in the direction of increasing the severity of those factors which increase bone destruction.[9]

CAUSES OF INCREASED URINARY CALCIUM (TABLE 2)

The most obvious cause of hypercalcuria is an increase in calcium intake. A person ingesting a normal amount of calcium (i.e., 0.6 to 1.0 gram a day) excretes in the urine an average of 200 mg. of calcium in 24 hours. On a low calcium diet, approximating 150 mg. per day, the excretion will range between 90 and 150 mg. As a rule an increased calcium intake will not raise the urinary calcium above 300 to 350 mg. a day if other factors are kept constant.

An increase in the acidity of the ash of the ingested food will materially increase the excretion of urinary calcium by allowing a higher serum calcium concentration and by promoting absorption of calcium from the gastrointestinal tract.

The administration of ammonium chloride or any other acidifying salt will affect calcium excretion by the same mechanisms as those mentioned above and, in addition, will increase urinary acidity to the degree where body stores of calcium, a base, will be drawn upon to combine with these acids so as to allow their excretion in the urine. Some exception must be made in the case of sodium acid phosphate, since the ability of the kidney to reverse the ratio of alkaline to acid phosphate will function normally to spare body bases in the excretion of this acid.

The administration of large amounts of irradiated sterols will increase the amount of calcium in the urine. Two mechanisms are operative. Because of the antirachitic action of vitamin D the absorption of calcium from the intestinal tract will be increased. At higher dosage levels of vitamin D Albright has demonstrated that this sterol has a "parathyroid-like" activity, instituting phosphate diuresis and secondarily increasing urinary calcium excretion.[10]

TABLE 2

Causes of Hypercalcuria

High calcium intake
Acid-ash diet
Administration of acidifying salts
Treatment with large doses of vitamin D
Immobilization
Fracture of bone
Hyperparathyroidism
Destructive bone lesions
Paget's disease
Osteoporosis, especially with immobilization
Thyrotoxicosis
Syndrome of "tubular insufficiency without glomular insufficiency"
DeToni-Fanconi syndrome
Idiopathic (Flocks)

Immobilization of a patient will lessen the stimulus for the laying down of the bone. The constant resorption of bone thus has no counterbalance, and calcium excretion in the urine will increase. This sequence of events is marked in growing children who are actively building bone, and Albright has pointed out that the process may be so extreme as to lead to an elevation of serum calcium.

The hypercalcuria which follows fractures is most probably due to a combination of several of the factors mentioned above. Immobilization will be operative if the fracture is severe. The frequent use of a high calcium intake together with an increased intake of vitamin D, under the misconception that such therapy will speed fracture healing, will add to the hypercalcuria. In addition it is common to find that these patients are partaking of large amounts of citrus fruits, a most effective method of raising urinary pH and promoting the precipitation of the supersaturated urinary calcium.

Hyperparathyroidism, although a relatively uncommon cause of renal calculi, must always be ruled out. Estimates as to the frequency of hyperparathyroidism as a cause of renal calculi range from 0.2 per cent to as high as 4 or 5 per cent. Some explanation for the difference in these figures may be advanced by pointing out that a clinic interested in calcium metabolism would not only search more carefully for parathyroid disease, but would also attract a larger number of patients who suffer from renal calculi in association with such disease.

Other destructive lesions of bone will often produce an increase in urinary calcium. This is common in metastatic bone lesions, especially those due to breast carcinoma. Destructive lesions of bone of an infectious nature, such as tuberculosis, are also prone to increase urinary calcium.

Paget's disease is a condition in which there is an increase in both the resorption and reconstruction of bone. If the destructive aspect predominates, calcium excretion will be increased. Immobilization of a patient with Paget's disease will aggravate his calcium loss and may even cause an increase in serum calcium, because under conditions of immobilization the stimulus to rebuilding of bone is minimized while the breakdown goes on unchecked.

The term osteoporosis is used here in the narrow sense of a specific disorder of bone rather than in the broader radiologic usage which indicates merely a decrease in bone density. The entity consists of lack of the osteoid matrix which makes up the framework on which calcium salts are deposited. The development of osteoporosis, which occurs most commonly in old age, following the menopause, and in several diseases in which there is increased catabolism (or anti-anabolism), will result in lack of a groundwork for calcium deposition and consequently will be followed by an increased urinary excretion of calcium. The hypercalcuria is most marked during the early stages of the disease. Osteoporosis is aggravated by immobilization, and thus elderly persons with osteoporosis who suffer fractures are especially liable to urinary concretions.

Thyrotoxicosis may result in osteoporosis and is associated with abnormal calcuria which may in part reflect an increased calcium absorption from the gastrointestinal tract. However, urinary calculi are uncommon in hyperthyroidism, perhaps because of changes in the colloid make-up of the urine.

Albright[11] has clarified an interesting syndrome, referred to as "tubular insufficiency without glomerular insufficiency," in which renal calculi occur, often in the form of nephrocalinosis. The basic defect appears to lie in the distal portions of the renal tubules and is manifested by inability of the kidney to secrete an acid urine or to form sufficient ammonia. The protection of the body bases usually afforded by these mechanisms is lost with consequent increased excretion of calcium and potassium. Patients with this defect show an elevation of serum chloride and a depression of serum carbon dioxide, both of which changes can be aggravated by administration of an acidifying salt in such dosage as would not affect normal individuals.

Increased calcinuria by a similar mechanism is seen in the deToni-Fanconi syndrome. Here the ammonia production is normal but even at its maximum is insufficient to compensate for the increased amount of organic acids, which may be made up largely of amino acids, that have not been reabsorbed. The association of glycosuria with amino-aciduria and hyperphosphaturia suggests the presence of this syndrome, which is believed to be caused by a specific defect in renal tubular reabsorption. An alternative explanation for the increased phosphate excretion is based on the existence of parathyroid hyperplasia which occurs as a result of lowering of the serum calcium.

An important and yet most confusing type of hypercalcuria is that studied by Flocks.[12] Included in the group of patients with renal calculi that Flocks has observed are a large number of persons with none of the diseases outlined above but who, despite adherence to a low calcium intake, persistently show a marked urinary calcium excretion. Patients with this disorder are difficult to manage since the etiology is unknown. Diagnosis is established by demonstrating even more marked calcuria when the patient is given a high calcium diet, for other disorders causing increased calcium excretion in the urine are less responsive to increased calcium intake.

Cause of Hyperphosphaturia

Increase of urinary phosphorus plays a less important part in stone formation than does an increase in calcium. McIntosh[4] has indicated that in all types of renal stones the basic ion is of much more importance than the acid ion. Some of the factors already listed as causing increased calcium excretion may also produce increased excretion of phosphorus. This is particularly striking in hyperparathyroidism, in the deToni-Fanconi syndrome, and in acidosis. The most important causes of hyperphosphaturia are an increase of phosphorus intake, either in the diet or by ingestion of phosphate medication, and urinary tract infection. Albright[13] has explained that, whereas meat-eaters pass most of their phosphate in the urine, their diet is acid in ash and keeps the urinary pH low. Herbivorous animals, because of the alkalinity of their diet, tend to have a urine of such high pH as to readily precipitate calculi but, fortunately, excrete their phosphate in the stool. Man, who is mainly carnivorous, and who normally excretes large amounts of phosphorus in the urine, may eat enough fruits or take enough medicinal alkalies to materially increase the urinary pH and thus make him more prone to form calculi.

Changes in Urinary pH

Although some renal calculi, such as uric acid and cystine stones, are formed in an acid urine, the majority of calcium salts are precipitated when the urinary pH exceeds 7. Formation of calcium oxalate calculi is not dependent upon pH, precipitation occurring in either an acid or an alkaline urine. There are 3 main factors which give rise to an alkaline urine:

1. An alkaline ash diet, which consists in large part of fruits and vegetables, although likely to lower calcium excretion, will materially decrease the solubility of calcium salts. The acid component of these foods is organic in nature; the organic acid is burned by the body, leaving its inorganic base to be excreted. Exceptions are corn, cranberries, plums, prunes, and rhubarb; these contain strong acid which cannot be entirely metabolized, necessitating their removal in the urine. It is interesting to note that 2 of the major "stone areas" in the United States are Florida and Southern California, where citrus fruits are used in large amounts.

2. The most effective method of raising the urinary pH is the administration of alkalis. These are used so frequently in this country as to be considered almost as a staple item of the diet. Some attention has been given to determining whether renal calculi are more frequent in patients who have ingested alkalies in large amounts over prolonged periods of time. Although Eisele[14] noted in a group of 305 patients suffering from urinary calculi that 11.1 per cent had a history of habitual ingestion of alkalis, Kretschmer and Brown[15] in a larger number of cases, observed that only 1.2 per cent had a history of being treated with alkalis for peptic ulcer.

3. A more important cause of a persistently alkaline urine, and one which is accepted without debate, is infection with "urea-splitting" bacteria. A number of organisms which commonly infect the urinary tract may possess the faculty of splitting urea to form ammonia; infection with these organisms causes a very alkaline urine. In any patient who suffers from renal calculi, irrespective of the cause, infection of the urinary tract may come about, especially if instrumentation is performed. If the infecting organism splits urea, a characteristic seen most frequently with proteus, E. coli, and some strains of staphylococci, conditions are established which are ideal for further stone formation.

Although measurement of urinary phosphorus is infrequently performed, measurement of urinary calcium is always desirable. A very rough measure for this purpose is the Sulkowitch test.[16] This consists of mixing equal parts of urine and a buffered ammonium oxalate solution. Calcium oxalate is precipitated as a white cloud, the density of which varies with the amount of calcium present. This test is accurate in demonstrating absence of calcium from the urine, which, however, rarely occurs except in hypoparathyroidism when the serum calcium is below 8 mg./100 c.c. of blood. The test is of some degree of value in demonstrating marked hypercalcuria. Interpretation of lesser changes in urinary calcium is very difficult and, at best, only partially accurate. When the test is used, it is important to avoid testing a single voided specimen which may reflect a recent increase or decrease in calcium intake. Accurate urinary calcium measurement is best carried out on a 24-hour urine specimen after the patient has been ingesting a low calcium, neutral ash diet for 3 to 5 days prior to the test.

Measurement of urinary pH can be satisfactorily conducted by use of pH paper such as Nitrazine paper (Squibb), the range of which is from pH 4 to pH 8 and falls within the limits of acidity of the normal human urine. If the pH is persistently elevated or if there is some other evidence of infection, the type of organism should be determined and it should be ascertained whether this organism possesses urea-splitting powers.

The treatment of renal calculi is not satisfactory, since we do not understand many basic problems underlying stone formation. Some of the disturbances outlined can be wholly or partially corrected. Irrespective of the basic cause of increased crystalluria, the administration of large amounts of fluids will result in a greater urinary volume and consequently, by dilution alone, lessen the probability of precipitation of the urinary constituents. Such treatment is of paramount value in hyperparathyroidism pending operation. It is worthwhile in the treatment of hypervitaminosis D and is especially necessary in immobilized patients. The position of bedridden patients should be changed periodically both to afford activity and to lessen urinary stasis.

Any existing condition which tends to increase urinary calcium should be corrected. The diet should be low in calcium and phosphorus and alkaline ash in type if the hypercalcuria appears secondary to dietary factors. Foods rich in calcium are the dairy products, egg yolks, nuts, legumes, dried fruits, olives, and molasses. Although leafy vegetables are high in calcium content, their large oxalic acid content will cause precipitation of calcium in the intestine and thus prevent its absorption. This matter is purely academic, since oxalates should also be eliminated from the diet because of their tendency to unite with calcium to form calcium oxalate concretions. Foods high in phosphorus are the dairy products, meat, poultry, fish, nuts, legumes, peas, corn, dried fruits, and bread. Because of the present tendency to fortify food stuffs it is well to remember that bread may also be high in calcium. Absorption of phosphorus can also be inhibited by the administration of aluminum hydroxide which forms insoluble phosphate salts in the intestinal tract.

Attempts may be made to increase the acidity of the urine so as to lessen the precipitation of calcium from solution. This can be accomplished by planning an acid-ash diet or by the administration of an acid-producing salt. Ammonium chloride is commonly used, the ammonium being converted to urea and leaving the acid radical for excretion. It is important to remember that either an acid-ash diet or the ingestion of an acidifying drug will decrease the tendency for precipitation but will increase urinary calcium excretion. On the other hand, an alkaline-ash diet or alkaline therapy, although it will decrease the urinary calcium excretion, will raise the pH of the urine and, consequently, further the tendency for precipitation of calcium salts. Therefore, in giving such therapy as will affect the crystalloids or the pH the identity of the major defect must always be recognized. In the patient with hypercalcuria of the idiopathic type administration of an acid salt should be given only if it can be demonstrated that such treatment does not increase calcium excretion.

When the urine is alkaline due to the presence of a urea-splitting infection it is important to avoid acidification. The ammonia production is of such a degree in these infections as to defy neutralization, and the acid salt can do little but increase calcium excretion in the urine and thus further the tendency to form concretions. Other contraindications to the use of such acidifying salts are the presence of the "tubular insufficiency" syndrome, kidney failure with uremia and acidosis, the presence of a peptic ulcer, and a history of formation of uric acid or cystine stones. A relative contraindication is the administration of too little acid, that is, sufficient acid to increase the calcium and phosphorus excretion but not enough to materially depress the pH.

During the past few years a number of very interesting studies have revealed other factors that may influence both the excretion of urinary calcium and the solubility of calcium salts in the urine. Jeghers,[17] in his review of oxalate metabolism, cites work carried out with respect to calcium oxalate stones which gave evidence that magnesium might have an effect on calcium excretion. These studies, conducted by Hammarsten, indicated that rats on a magnesium-poor diet had increased urinary calcium excretion; this decreased to a considerable degree when magnesium was added to the diet.

The presence of citric acid in the urine lessens the probability of stone formation. Urines containing sufficient citric acid form weakly-ionized, soluble calcium citrate complexes which occur with greatest facility in the elevated pH range where calcium phosphates are more often precipitated. Shorr[18] carried out studies which indicated that administration of an estrogenic hormone would materially increase citric acid excretion and thus lessen the probability of stone formation. Some evidence has been advanced to indicate that patients prone to form stones have a lesser amount of citric acid in the urine than do normal persons.

Both of these studies throw new light on the genesis of stone formation. Each has definite therapeutic possibilities. Although more work needs to be conducted, the knowledge that such factors exist promotes a feeling of optimism in respect to the future of the renal stone problem.

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EMOTIONS AND GYNECOLOGICAL PAIN

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ONE of the most frequent and trying problems in gynecology is presented by the patient who relates a history of "pelvic pain" for which the physician can find no satisfactory organic cause. Minor deviations from the absolute normal, such as a freely movable retrodisplacement of the uterus, cervical hypertrophy, or a slightly enlarged ovary may be present, but none of these will satisfy the conscientious gynecologist as being etiologically responsible for the patient's pelvic pain. Like other specialists, the gynecologist is inclined to indulge in rationalizations in order to give himself explanations that seem to justify his procedures. The objective motives behind his immediate therapeutics may be lost in the process of rationalization. It is easy to exaggerate the degree or importance of various pelvic findings, especially if the patient "presents her problem" well.

Menninger[1] has pointed out that surgery is often sought by patients who fear something else more than they fear surgery. Many surgical operations, even unnecessary ones, may temporarily cure nervous diseases, not for physiologic or anatomic reasons, but because of deep psychologic reasons. The closer an operation approaches the genital region, connected as it so often is with strong feelings of guilt, the greater likelihood the temporary relief from anxiety can be expected to follow such "punishment."

The close connection between mental states and the functioning of various organs is well established. In gynecology this relationship is of particular importance because of the intimate association between the pelvic organs and the emotional life of every woman. Since the symptoms which result from altered function of the organs may be the same whether the cause is of local, constitutional, or emotional origin, it is necessary for the gynecologist to determine which cause or causes are responsible. It is often assumed that certain sudden strong emotional episodes, such as extreme fear, anger and, particularly, eroticism, may leave visible effects upon the reproductive organs of the woman. If these emotions are fleeting they leave no permanent effect. It is the repeated emotional disturbances which may cause disturbance in female genital function. In the neurotic individual constant fear, grief, or worry can be enough to produce the marked effects which are often mistaken for organic disease. Many physical symptoms find their underlying cause in the operation of emotional disturbances upon the autonomic nervous system either directly or indirectly by way of the endocrine system. Kuntz[2] says the circulatory system of the female pelvic organs is, to a large extent, controlled by the pelvic autonomic nervous system. Autonomic stimulation causes vasospasm, muscular tension, and anoxia followed by vasodilation and edema.

Emotional factors may play the same role in the production of pelvic pain as they play in the production of so-called tension or migrainous headaches. Wolff[3] has shown that migraine headaches are vascular in origin and develop in 3 distinct phases:

1. The vasoconstriction phase, which is brief and does not cause pain.

2. The vasodilation phase, which is the immediate cause of pain in that the pain sensation structures surrounding certain vessels are stretched or pulled upon.

3. The edema phase, which follows the vaso-

dilation and lasts a considerable length of time.

In clinical medicine the recognition of psychogenic pain is usually not difficult, but the psychodynamics involved are not so readily or generally understood. Within the limits of present knowledge there is no conclusive explanation as to why anxiety, worry, and other emotional strain should produce asthma in one patient, peptic ulcer in another, ulcerative colitis in still another, and in some women changes in the female reproductive organs. The prolonged results of vascular congestion and hyperemia have been described by Taylor[4,5] as the congestion-fibrosis syndrome.

Peptic ulcer is a medical disease in which relief of tension is of prime importance. Surgery is used as a last therapeutic resort. Correspondingly, the congestion-fibrosis syndrome which causes uterine congestion, abnormal bleeding and pain, should be considered a "general disease with a local manifestation." Therapeutically surgery should be used only after medical and psychiatric treatment have failed.

Goodell[6] in 1889, in an article entitled "The Abuse of Uterine Treatment through Mistaken Diagnosis," condemned local treatment of the pelvic organs and suggested treatment directed at the nervous system.

Playfair[7] in 1896 related the close association between gynecologic symptoms and the nervous system. In this article he quoted Goodell as follows: "One of the grandest discoveries in the treatment of the nervous phase of women's diseases is the rest cure, for which we owe a large debt of gratitude to Weir Mitchell. Formerly, there were in every city, town and hamlet, sofa-ridden and bedridden women who were doomed to helpless invalidism under the label of weak spine, or spinal irritation, of irritable womb, or of chronic ovaritis. So countless were the cases in the young and in the old, in the married and in the single, in the fruitful and in the barren, so much misery was entailed on the sufferer and on her kin, so many homes were blighted, so powerless was the medical profession to give help, that the pathetic lament of the Hebrew prophet could not have better applied than to this great and widespreading scourge. 'Is there no balm in Gilead? Is there no physician there? Why then is not the health of the daughter of my people recovered?' Yet now I think myself safe in the assertion that very few of the cases are incurable, and that no other discovery in medicine has raised so many women from their beds and restored them to lives of active usefulness. It is the miracle of modern therapeutics."

Mayer[8] devotes a chapter to psychogenic pain and unpleasant sensations in the genital system. He reports thirteen patients relieved by psychotherapy.

Cooke[9] states that 95 per cent of the intensity of human suffering is mental, and many physiologic disturbances are of purely psychic origin; if this great psychic element can be removed or lessened, the patient's suffering will be alleviated to that degree.

Gordon,[10] in defining psychologic pain, states that perhaps the majority would agree that psychogenic pains are due to an intensification of discomfort found in subclinical bodily derangements of structure or function in neurotic subjects induced either by alterations of muscular or vascular tone or by auto- or hetero-suggestion.

Flind and Barber[11] point out that before a diagnosis of psychogenic pain can be established with certainty the following criteria should be established:

1. No significant somatogenic factor can be discovered by adequate examination and investigation.
2. Even if some possibly significant somatogenic factor has been discovered, treatment along somatic lines over a reasonably limited period has failed to effect improvement.
3. Positive signs of emotional conflict or instability are present.
4. And finally, as the therapeutic test, adequate psychotherapy which succeeds in removing the emotional conflicts or instability also removes the pain.

It is desirable to inquire further into the true nature of such pain. Wolff[12] states that Aristotle described pain as a "passion of the soul," and his view was maintained to the end of the nineteenth century. Pain was thought of not as a sensation with end-organs, nerves and tracts, such as touch or heat and cold, but as a form of feeling akin to, but the opposite of pleasure. In the beginning of the twentieth century, neurophysiologists discovered that pain is a true sensation.

Head[13] has shown that the ultimate reception area of actual pain sensations is the thalamus. At this level the subject is conscious of pain, although the localization of its origin is not precise. Such localization, the appreciation of the degrees of intensity of pain, and its nature is the function of the cortex. It is over these pathways that emotional and intellectual processes communicate. Clarke[14] has shown that the interconnections between the frontal lobes and the thalamus are numerous. The results of lobotomy indicate that by decreasing or abolishing these connections the intensity of the emotional conflicts of the agitated patient can be reduced. Freeman and Watts[15] have advocated psychosurgery for the relief of intractable pain in organic conditions such as malignant diseases, tabes, and others. They explain that, although the pain is not abolished by such procedure, the patient's responses are changed so that he no longer has any fear of pain and is therefore not as disturbed or uncomfortable and suffers much less. It is manifest, therefore, that the discomfort of emotional derangement is closely associated with the sensation of pain.

Hardy, Wolff and Goodell[16] observed that distraction, suggestion, and hypnosis may raise the pain threshold by as much as 35 per cent. Pain is generally described as organic or functional but might be distinguished better as somatogenic and psychogenic. Pain which is the direct or indirect result of painful stimuli arising from a lesion of any part of the body is somatogenic. Psychogenic pain is of two types: (1) hysterical, in which unconscious fantasies due to an emotional loss of some sort are converted into pain, and (2) situational, in which repeated stimulation of the autonomic system results in alterations of vascular and muscle tone and changes in glandular secretions. In this second type of psychogenic pain physical changes are secondary to emotional disturbances.

In the development of a psychosomatic disorder there are 3 requisites: (1) a psychoneurotic predisposition, (2) an exciting emotional conflict, and (3) restriction of outward expression of the conflict. All individuals, whether normal or psychoneurotic, seek relief from mental suffering occasioned by disturbing life problems. When emotional tension is expended by outward expression, muscular or verbal, all is relatively well. By taking some form of action or doing something about it, the individual "gets it off her chest" and feels better. If emotional dissipation is constantly restricted, the tension gradually mounts.

In a psychoneurotic type of individual the development of somatic complaints including "pain" may be the eventual result of prolonged tension. Therefore, in the treatment of psychogenic pain the real origin of the mental disturbance must be uncovered before alterations in balance of function and the relief of pain can be accomplished.

ILLUSTRATIVE CASES

Case 1. A patient, aged 21, complained of acute bilateral lower abdominal pain of 12 hours' duration. Pelvic examination failed to reveal any abnormalities, although there was generalized pelvic tenderness. She was reassured and by the following day the pain had disappeared as dramatically as it had begun. Subsequently, she had 2 similar attacks at weekly intervals. During her third visit she revealed the fact that her husband had been away and that she had been having sexual relations with another man. She confided that she felt very guilty about her actions, and during this discussion it was determined that the pain usually started on the day following intercourse. She was advised that if she were to be relieved of pain and the guilt feelings causing the pain, the illicit romance must be discontinued. This advice was followed and her symptoms disappeared.

Case 2. A patient, aged 28, complained of a dull lower abdominal pain of 5 months' duration. This pain had begun as a discomfort and was becoming progressively worse. Pelvic examination failed to reveal any abnormalities.

She had been married 3 years and very much desired a child, but due to her husband's opposition and his practice of coitus interruptus she had not conceived. Also, for the past 8 months she had had no sexual relations because her husband masturbated instead. She had established residence in another state in order to obtain a divorce, but her sister had interceded on her husband's behalf with the suggestion that they give the marriage another chance. The husband was brought in for a discussion and was referred to a psychiatrist for treatment. As he improved normal sexual relations were established and the wife's pain disappeared. After 17 months she became pregnant and was later delivered. She has had no recurrence of lower abdominal pain.

Case 3. A patient, aged 24, complained of left lower quadrant pain of about 13 months' duration. Pelvic examination revealed no organic reason for the pain, which had begun 2 months following an induced abortion. She intended to marry shortly and feared that she might be sterile, having been told that sterility frequently followed induced abortions. She presented no history of infection following the abortion, and it was explained to her that she had suffered no ill effects. However, since she requested proof that her tubes were open, a tubal insufflation was performed with gas passed at 100 mm. Hg. It was again emphasized to her that no one would know she had had an abortion and that she would undoubtedly conceive. Shortly thereafter the pain disappeared and there was no recurrence. Eight months later the patient became pregnant.

Case 4. A patient, aged 36, complained of lower abdominal discomfort, which she described as "more of a soreness than actual pain" beginning about 6 months before her visit and becoming progressively worse. She also complained of frequent headaches during approximately the same period of time. Pelvic examination revealed an enlarged cervix with a profuse mucoid discharge and a corpus uteri twice normal in size and in midposition. There was also generalized pelvic tenderness. This patient showed obvious signs of anxiety. She revealed that she was terribly worried because her husband had been making her masturbate. This practice caused her to feel guilty and to worry about its effect on her health. She was reassured, and her husband, who was very coöperative, was referred to a psychiatrist. Her symptoms disappeared at once.

Case 5. A patient, aged 41, complained of bilateral lower abdominal pain of 6 months' duration. At the onset the pain was located in the left lower quadrant, and she had been told that she had a "bad ovary" on that side which should be removed. However, surgery was not performed. Associated with this she had noticed soreness in the back of the neck for a number of years. Pelvic examination revealed a bicornate uterus, a diagnosis which was confirmed by X-ray examination. Otherwise the genital organs were normal. She was taking 3 grains (0.2 Gm.) of thyroid, and the basal metabolic rate was a minus 3 per cent while taking that amount. At the ages of 36 and 38 she had lost 2 babies due to premature birth, the reason given being the anomaly of the uterus. She was extremely anxious to have a child but had not been able to conceive. She was advised to begin negotiations with an agency for the adoption of a child, and to obtain part-time employment. The pain disappeared within 3 weeks, and she had no further complaint when last seen, 1½ years later.

Case 6. A patient, aged 38, complained for 3 months of pelvic pressure "as though her organs were dropping out." Pelvic examination failed to reveal any abnormalities. This patient, although married for many years, never had children. She had been caring for her aged mother in her home for years, and for about 5 months her aged mother-in-law had also lived with her. She was doing all of her housework, cooking, cleaning, and nursing 2 semi-invalids. After a consultation with her husband it was decided to place both parents in a rest home. The symptoms disappeared, and 13 months later she became pregnant. Subsequently she had a normal delivery.

Case 7. A patient, aged 22, complained of intermittent left lower quadrant pain for about 6 months. She described the pain as "an ache in my left ovary." Pelvic examination revealed normal genital organs; the left ovary was easily palpable, normal in size, and freely movable. In reviewing her history, it was noted that she had been married a year. The pain developed about 1 month after her husband was ordered to overseas duty. She stated that her sexual desires were very marked, disturbing her sleep, and that the pain was worse just prior to the onset of menstruation when her sexual desires were strongest. She was reassured, and the probable mechanism explained to her. She continued at intervals to complain of mild attacks of pain, but after her husband's return the pain disappeared and had not returned 13 months later when she presented herself as an obstetrical patient.

Case 8. A patient, aged 37, complained of lower abdominal pain of 2 months' duration. It was at first located in the right lower quadrant (her appendix had been removed) and later became a generalized pelvic pain. The only abnormal finding, during pelvic examination, was a myoma about 4 cm. in diameter in the region of the left cornu.

This patient had been married 12 years and had practiced contraception. When asked if she wanted a child, she replied that she really did but had found it inconvenient for various reasons. She related a number of weak excuses. She disclosed that at one time her husband had threatened to divorce her if she did not have a child, whereupon she lost 30 pounds in weight. Her comment on this episode was, "Of course I was in no condition physically at that time to have a baby." She also revealed that her mother had died of hemorrhage when she was born and that a sister had died shortly after the birth of a child. This patient was referred to a psychiatrist, and after psychotherapy the pain disappeared. Sixteen months later the patient was delivered of a normal infant without complications.

Case 9. A patient, aged 27, complained of almost constant bilateral lower abdominal pain associated with low backache which had troubled her for about 2 months. Pelvic examination revealed normal genital organs. The only variations noted were a diffuse suprapubic tenderness and a uterus in third degree retroversion, slightly enlarged but symmetrical and freely movable.

This patient disclosed that her husband practiced coitus interruptus and usually had an orgasm before she did, which usually left her in a highly excited state. Her only relief from tension had consisted of a manually induced orgasm, which she felt was not normal and had found increasingly objectionable. When contraceptives were discussed, she objected to a diaphragm and cream. Her husband agreed to use a condom, and after the establishment of normal sexual relations both lower abdominal pain and backache disappeared within 3 weeks. Eight months later, when the patient was last seen, there had been no recurrence of symptoms and the uterus was normal in size, although it continued to remain in a state of third degree retroversion.

Case 10. A patient, aged 32, complained of lower abdominal pain of about 5 months' duration. This pain had been progressive and she now had, in addition, an epigastric distress. She stated that the lower abdominal pain was worse after being on her feet and was frequently associated with low backache. Pelvic examination revealed normal genital organs with the uterus in third degree retroversion but normal in size and freely movable. Generalized tenderness over the suprapubic area was noted. During the preceding year there had been increasing domestic strife between the patient and her husband. About a month after her first visit the patient obtained her divorce and her pain was diminished. During the next year she had occasional pain until she remarried. After her remarriage she reported no further attacks of pain during the several times she was seen.

SUMMARY AND CONCLUSIONS

In gynecologic practice there is a great tendency to interpret symptoms, particularly pain, as due to anatomic or physiologic disturbance. Frequently pelvic pain is of psychogenic origin. Because of the close association between the genital organs and the emotional life of every woman, psychogenic pain is often referred to the pelvic region. Fear, guilt, and disturbed libido form an important background in tension in women. Tension states cause psychogenic stimulation of the autonomic nervous system which may result in spasm, congestion, and edema. Although pain from prolonged tension may manifest itself in any part of the anatomy, the abdominal viscera and genital structures are favorite organs for the localization of psychogenic pain in women.

In the 10 patients reported above superficial psychotherapy was effective in relieving 8 patients of their pain; 2 patients had to be referred to psychiatrists because of deep emotional disturbances. In all of these patients there were minor anatomic deviations from normal, but the pain in each instance was due to some psychogenic rather than organic cause.

Although many women may be relieved of their symptoms by accepted gynecologic procedures such as replacement of the uterus and insertion of a pessary, cauterization of the cervix, diathermy, hormonal injections, or even major surgery on the female reproductive organs, it is the psychologic reaction rather than the physiologic or anatomic results of these procedures which often produces the relief.

In gynecologic practice the emotional, environmental, and habitual life of the woman should be carefully evaluated in the interpretation of abnormal pelvic symptoms, particularly pain.

(*Continued on page 119*)

THE USE OF ERGOT-CAFFEINE SUPPOSITORIES IN MIGRAINE*

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THE present report concerns itself with one phase of therapy of the migraine syndrome. As has been repeatedly emphasized,[1, 2] treatment in this condition falls into two categories: (a) therapy for individual attacks and (b) an individualized regimen designed to reduce the frequency and severity of attacks and optimally to prevent attacks.† By migraine is meant headaches which are episodic in occurrence, frequently unilateral, preceded by visual and/or other nervous system phenomena, and accompanied by gastrointestinal symptoms; they occur in patients of a definite, fixed personality type[1, 6] and are often hereditary. Variants are recognized in this symptom-complex and are designated atypical migraine.

The appearance in recent literature of reports of the efficacy of a variety of agents[7, 8, 9] in the treatment of individual attacks emphasizes the lack of a specific remedy for migraine. Reports concerning ergotamine tartrate and derivatives,[1, 10, 11] particularly recent experience with a caffeine-ergot combination (Cafergone—EC 110),[12–15] have been generally favorable. Until recently, experience with the latter group of drugs has been restricted to its administration by mouth or parenterally. In a large series of cases culled from our clinic and private practice, these routes have proved efficaceous in the majority of instances. For others, however, these methods of administration have proven grossly unsatisfactory for one or more of the following reasons:

A. Parenteral administration:
   1. The person designated to administer the medication (physician, friend or family) may not be immediately available.
   2. If medication is to be self-administered, patients are frequently too tense and jittery to make the injections themselves. Others find themselves losing a variable and unknown part of the medication through syringe leakage, slipping due to clumsiness, or inability to see well enough to fill the syringe properly.

B. Oral administration:
   1. Patients may be too nauseated to retain medication.
   2. The medication may induce vomiting.

Because of these objections to oral and parenteral administration, suppositories containing 2 milligrams of ergotamine tartrate and 100 milligrams of caffeine‡ have been prepared.

Each patient has been studied and treated in the individual method discussed in a previous publication.[2] Response to the use of ergot by mouth or injection was known before attempting to use it per rectum. Instructions were to use the medication at the onset of a headache. Three illustrative cases from among 39 patients with various kinds of headaches so treated to date are briefly described.

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† Only the former problem is mentioned here. The latter problem is discussed in other papers[3, 4, 5] in the bibliography.

‡ EC 112, a product of the Sandoz Chemical Works, Inc., New York 14, N. Y.

Illustrative Cases

Case 1. R. W. is a 39-year-old single woman who was first seen by us on January 30, 1949. Her history was one of intermittent headaches since 1940, occurring approximately once a month and always within the week prior to menstruation. The pain was located over the right side of the face and was of a throbbing nature and associated with nausea and vomiting. Occasionally pain occurred on the left side. No eye signs were noticed prior to the onset of the headaches. A brother had similar headaches. The physical examination was entirely negative other than for a soft systolic murmur over the apex. Complete blood count, urinalysis and stool examinations were negative. X-ray examinations of the skull, chest and gallbladder were interpreted as normal. A serologic test for syphilis was negative. The basal metabolic rate was minus 5 per cent. Proctoscopy and fluoroscopic examination of the upper gastrointestinal tract were normal, as was the cervical smear for malignancy. An electrocardiogram was within normal limits.

Because of the infrequent nature of the condition, therapy on this patient was restricted to symptomatic control of individual headaches. Intravenous dihydroergotamine, 1 c.c., administered in the office on February 4, 1949, gave excellent results. Two days later 1 c.c. of dihydroergotamine administered subcutaneously at home by a nurse gave relief in 1½ hours. The patient was then instructed on self-administration of dihydroergotamine subcutaneously. Her next visit, some 3 months later, indicated that 1 c.c. of dihydroergotamine, taken March 26, 1949, gave partial relief, but when taken on April 9 and May 12, 1949 no relief was obtained from the same dose. It was subsequently determined that when in the throes of her headache the patient had great difficulty loading the syringe and particularly in injecting herself. Consequently the patient was supplied with suppositories of EC 112 (2 mg. ergotamine tartrate and 100 mg. caffeine). The administration of a suppository on August 1, 1949 was followed by emesis, but complete relief from the headache in 1 hour. When next taken, on August 22, 1949, the patient reported almost 90 per cent relief from the headache within 2 hours.

Case 2. A. R. is a 48-year-old married woman who was first seen by us on February 3, 1947 with the chief complaint of pulsating headaches over the right eye and temple of 20 years' duration. These were accompanied by photophobia and profuse emesis. Of late the frequency of the headaches had progressed to every 3 days. Response to gynergen had been good, although its use was associated with much emesis and leg cramps. Her menstrual periods were likewise becoming more frequent. Her mother had suffered similar headaches. Physical examination revealed a blood pressure of 170/90. Multiple uterine fibroids were discovered. A complete blood count showed moderate hypochromic anemia which was readily corrected by the use of iron taken orally. Urinalysis, stool examination, and serologic test for syphilis were normal. An electrocardiogram was within normal limits.

The patient was started on intravenous histamine therapy on February 8, 1947,[2, 5] and shortly afterward she began to take histamine subcutaneously. Dihydroergotamine was recommended for individual episodes and was taken with excellent results and without emesis. By mid-1947 the headaches occurred only once a month or less. A massive uterine hemorrhage resulted in moderate anemia and return of the headaches to once weekly at this period. A hysterectomy was performed on July 20, 1948.

In September 1948 the patient began working and felt well. Occasional headaches (about once a month) were relieved promptly by dihydroergotamine administered subcutaneously by her husband. In April 1949 a headache occurred while her husband was at work and she suffered over 12 hours of migraine without relief. Cafergone was recommended, and 2 tablets were taken on May 25, 1949. The patient reported that following the ingestion of 2 tablets she began to vomit profusely, noticed that her lips and fingers turned blue, and had palpitation of the heart and numbness of both legs. After this episode, which lasted 4 hours, the headache continued. The patient refused to take cafergone thereafter. She returned to dihydroergotamine injections with relief again within 2 hours, but expressed fear of headaches occurring while her husband was at work.

On July 26, 1949, the patient first used EC 112 and noted complete relief within 2 hours. Headaches, recurring at monthly intervals, have continued to respond to ergot suppositories within 1 hour. The patient has returned to work and now has infrequent headaches.

Case 3. M. F. is a 43-year-old married female who first consulted us on January 15, 1949 with the complaint of headaches associated with menstruation for a year. The pain started in the left side of the neck and radiated to the left temple with throbbing of the left side of the head. It lasted up to 7 days at a time and was continuous rather than episodic. No aura or gastrointestinal symptoms preceded them. Menstruation had become increasingly irregular, and occasional hot flushes had begun of late. She had been extremely depressed for the previous month. The family history was negative for headaches and other related disorders. There was tenderness of the nuchal area and muscles of the neck. The remainder of the examination was negative. Complete blood count, serologic test for syphilis, urinalyis and stool examination were negative. A cervical smear was negative for malignancy. X-ray films of the skull, sinuses and chest were interpreted as normal. Views of the cervical spine showed the presence of a minimal osteoarthritis.

Our treatment of this patient consisted of reassurance and replacement therapy with estrogens and progesterone. Between February and April of 1949 she had infrequent headaches. On May 5, 1949 the patient excitedly called to report that a headache had begun during the night and was associated with profuse vomiting and diarrhea. Dihydroergotamine, 1 c.c., given intravenously afforded no relief. Questioning revealed that the patient had argued violently with her husband the night before and had been unable to sleep all night. For the next 3 days her cyclical vomiting required heavy sedation, intravenous fluids, and narcotics for a continuous headache. The use of dihydroergotamine, gynergen and cafergone gave no relief. Improvement was noticed only after hospitalization on May 15, 1949. Following her discharge from the hospital the headaches recurred nightly. EC 112 taken for these had no effect.

Estrogen and sedation therapy and psychotherapy were resumed on May 21, 1949, and by June 3, 1949 the patient felt "75 per cent improved." When last seen on July 8, 1949 she had had a complete absence of headaches for over one month. This case is reported to show the failure of response to the use of EC 112 suppositories when ergot derivatives had been ineffective by other routes.

Our experience has demonstrated this form of medication to be effective in patients with known beneficial response to ergot by other methods of administration and to be applicable when oral or parenteral medication is not feasible. One suppository was usually sufficient to control symptoms. In spite of relief from headache, some patients complain of nausea, vomiting, nervous excitement, and palpitation after the use of EC 112. For this reason, newer preparations containing sedatives and antispasmodics in a water-soluble base to insure more rapid and complete absorption are being investigated.

SUMMARY

Ergot-caffeine suppositories are effective in the management of individual attacks of migraine in patients unable to tolerate or administer medication by mouth or parenterally.

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TREATMENT OF CARDIAC ARRHYTHMIAS*†

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THE subject of cardiac arrhythmias is of considerable importance for many reasons. These disturbances are common; they frequently produce intense anxiety on the part of the patient; the rapid rate often precipitates heart failure; the arrhythmia can in most instances be easily diagnosed clinically or by graphic methods; and the results of treatment are among the most satisfactory observed in any branch of medicine.

An ectopic rhythm may be suspected from the following: (1) the presence of an irregularity, (2) a rate below 30 or above 140 per minute with regular rhythm, (3) a history of sudden onset of rapid rate, (4) rapid rate coinciding with the onset of failure, (5) sudden halving of rate following carotid sinus pressure, (6) variation in intensity of the first heart sound with slow or rapid rate, and (7) no change in the rapid rate from moment to moment following exercise. The diagnosis can be definitely established by the electrocardiographic findings.

The principles of therapy are not particularly complicated. The number of dependable drugs available is relatively small. However, the doses given and the methods of administration vary in different clinics. The mistake often made is that too little of the drug is given. Frequent clinical rechecks, including the use of graphic methods, will enable one to gauge the optimum dose and will help him to recognize the development of toxic effects in the early stage.

Only some of the more common disturbances of the cardiac mechanism will be discussed.

AURICULAR FLUTTER

The presence of auricular flutter is to be considered in any patient presenting evidence of an ectopic rhythm with a regular apical rate ranging from 140 to 180 per minute. It must be differentiated from all varieties of paroxysmal tachycardia, from a rapid simple tachycardia, and, when the ventricular response is irregular, from auricular fibrillation. With 3-to-1 and higher grades of auriculo-ventricular heart block, it is difficult to diagnose auricular flutter except by graphic methods.

The diagnosis of auricular flutter is usually clearly established by means of the electrocardiogram. Although any lead may be used, auricular waves are most clearly delineated in the CR_1 position of the precordial leads and are best seen directly after carotid sinus pressure, as a result of which auricular cycles are seen unobscured by the ventricular complexes. Esophageal leads are even more helpful in the elucidation of the auricular mechanism in doubtful cases.

Digitalis is the drug of choice in the treatment of auricular flutter. In addition to being a cardiac stimulant, digitalis will break up the auricular flutter in about 70 per cent of the cases. In most instances the flutter is converted to auricular fibrillation. Digitalis is then stopped, after which the fibrillation reverts to normal rhythm spontaneously in about two thirds of the patients. If the fibrillation tends to persist after a period of 1 to 2 weeks, quinidine may be tried in an endeavor to convert the auricular fibrillation to normal rhythm. The use of quinidine to restore normal rhythm is indicated in those cases of auricular fibrillation in which the onset of the irregularity is of recent origin, the heart is not severely diseased, and the enlargement of the left auricle is not considerable in degree. In such instances quinidine is successful in converting auricular fibrillation to normal rhythm in over one half of the cases. Occasionally quinidine converts auricular fibrillation back to auricular flutter.

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Quinidine sulfate is the drug of second choice in the treatment of auricular flutter, and for all practical purposes its use should be restricted to those cases in which digitalis has failed to break up the flutter. Quinidine is successful in converting auricular flutter to normal sinus rhythm in about 20 to 30 per cent of cases. This drug is a protoplasmic poison and should be used with caution, especially when large doses are required and in the presence of severe myocardial damage. In the presence of congestive heart failure it should rarely be used. Quinidine, when successful, converts the flutter directly to normal sinus rhythm without auricular fibrillation intervening.

The auricular rate under quinidine may drop as low as 135 per minute. The ventricular response also changes, due to vagal paralysis; the degree of auriculo-ventricular heart block changes from 2-to-1 to 1-to-1, and with an auricular rate of 135 per minute the ventricular rate may also be 135 per minute.

The use of acetyl beta-methylcholine has also been suggested for the purpose of breaking up auricular flutter. However, this drug causes a profound fall in the blood pressure and its use for the treatment of auricular flutter is not recommended.

When auricular flutter is associated with a rapid ventricular rate and a severe grade of heart failure, and when absorption of the drug may be slow or uncertain, one may resort to the use of a preparation intravenously or intramuscularly, which is somewhat safer. For the intravenous route, strophanthin, 1/100 to 1/50 grain (0.6 to 1.2 mg.), may be used; for the intramuscular route, 3 to 5 cat units of digalen* may be administered.

AURICULAR FIBRILLATION

Auricular fibrillation may be suspected clinically in a patient manifesting an absolute irregularity who presents evidence of advanced myocardial disease of the types mentioned previously, and especially if the patient is observed in congestive failure. Clinically, auricular fibrillation must be differentiated from multiple extrasystoles arising from different foci and auricular flutter associated with varying degrees of heart block. In these conditions exercise tends to make the rhythm less irregular or even regular, whereas in auricular fibrillation the rhythm tends to become more irregular. The electrocardiogram usually makes the diagnosis possible beyond a doubt.

Since auricular fibrillation is usually associated with varying degrees of heart failure, therapy should be directed to this state in addition to the treatment of the irregularity. Digitalis is the drug of choice in the treatment of auricular fibrillation. Digitalis acts by impeding the passage of impulses from auricle to ventricle and thus slows the ventricular rate. This is accomplished by a direct effect on the myocardium and by a vagal effect on the auriculoventricular node. The maximum therapeutic effect is said to be reached when the apical rate drops to about 70 per minute with an elimination of the pulsus deficit. Digitalization may be performed rapidly in patients with a severe grade of heart failure and rapid rate or slowly in those patients in whom failure is of slight or moderate degree.

The approximate dose required for a patient weighing 150 pounds is about 22 grains (1.4 Gm.) of the powdered leaf. This may be given over a period of 4 or 5 days when slow digitalization is desired, or within about 2 days when rapid digitalization is considered necessary. When the patient presents a picture of severe congestive failure which necessitates rapid digitalization and definite absorption, the parenteral route is indicated. Strophanthin, 1/100 grain (0.6 mg.) may be given intravenously, followed in 2 to 3 hours by 1/200 grain (0.3 mg.). This last dose may be repeated if necessary in about 5 hours.

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* Other digitalis preparations that may be used intravenously are digoxin, digitoxin, and cedilanid.

Digalen, 2 to 3 cat units, may be administered intramuscularly and repeated 1 or 2 times in 6 to 8 hours, depending upon the effect of previous doses on the heart. Digitalis is contraindicated in patients with a slow ventricular rate, that is, below 50 per minute (independent of treatment), and should not be given when the ventricular rate following therapy has decreased to 40 or 50 beats per minute. In such cases further slowing of the ventricular rate does harm by increasing the diastolic volume, which leads to stretching of the already diseased cardiac fibers. The dosage of digitalis required to produce the desired therapeutic effect varies considerably, depending upon the age of the patient and the underlying pathologic state.

In the presence of thyrotoxicosis or other toxic states, and in patients with increased sympathetic tone, the dosage required to maintain a ventricular rate of 70 to 80 per minute is usually higher than the average. On the other hand, in older patients with sclerotic changes in the auriculoventricular node and in those with overactive vagal tone, smaller doses usually suffice to slow the ventricular rate. Patients with aortic stenosis are particularly sensitive to digitalis and usually can tolerate only small doses. It should be emphasized that the reduction of the apical rate to 60 or 70 does not necessarily coincide with the maximum degree of improvement in so far as signs of congestive failure are concerned. Frequently edema may be present even at these slow rates. In such instances digitalis should not be increased. Instead, the signs of failure should be treated by diuretics and other procedures.

Toxic effects of digitalis manifest themselves by the appearance of numerous ventricular extrasystoles, coupled rhythm, and sequences of 2 or more ectopic ventricular beats. With continuance of the drug beyond this stage paroxysmal ventricular tachycardia may result. This is a dangerous type of arrhythmia, not only because of the rapid rate of ventricular beating, but because it predisposes to ventricular fibrillation, which is usually incompatible with life. It should be emphasized that these toxic effects may occur in the absence of nausea, vomiting, and other frequently mentioned toxic manifestations. These ectopic rhythms may be avoided by carefully supervising the digitalis dosage and carefully following the progress of the patient clinically and electrocardiographically. When such toxic effects appear, digitalis should be stopped immediately. Should the effects continue to the stage of ventricular tachycardia, quinidine sulfate may be administered in an effort to abolish this arrhythmia.

The continuance of auricular fibrillation involves 3 dangers: the circulatory dynamics are relatively inefficient as compared with those present with normal rhythm; continuous digitalization is required; and, most important, there is a constant danger of embolic phenomena leading to serious complications.

Quinidine sulfate is indicated in the treatment of auricular fibrillation where it is desired to convert the irregularity to normal sinus rhythm. It is indicated when the onset of fibrillation is relatively recent, when the heart is not severely diseased, and when the auricles as observed fluoroscopically are not greatly enlarged. In such cases quinidine is efficient in converting the fibrillation to normal rhythm in over 50 per cent of patients. Frequently quinidine administration must be maintained for 2 to 3 months after restoration of normal rhythm, since earlier cessation of its administration may lead to the return of auricular fibrillation. Quinidine sulfate is also indicated in the prevention of attacks of paroxysmal auricular fibrillation, when such attacks occur frequently.

One of the dangers to be considered in the restoration of normal rhythm by the use of quinidine is the possibility of emboli being thrown off into the circulation. Statistics relative to this occurrence vary considerably, because it is difficult to differentiate embolic phenomena which occur as a result of the underlying cardiac state. In cases in which the fibrillation is of less than 3 months' duration the danger of embolic phenomena is slight compared with the benefits to be derived.

Auricular fibrillation which results from thyrotoxicosis usually disappears with restoration of a normal basal metabolic rate following successful thyroid surgery. Quinidine may be of help in those patients in whom the restoration of normal rhythm is somewhat delayed.

Auricular fibrillation which results from active rheumatic infection, toxic processes, or a disturbance of metabolism, tends to return to normal rhythm with the cessation of these processes unless the auricular muscle has been severely damaged, with resultant irreversible changes.

PAROXYSMAL AURICULAR TACHYCARDIA

The diagnosis of paroxysmal auricular tachycardia should be suspected in a patient who gives a history of sudden acceleration of the heart beat which lasts for varying periods of time and stops suddenly. The previous presence of auricular extrasystoles is suggestive evidence. The presence of a regular rhythm during the paroxysm, the rate of which ranges from 140 to 220 per minute, should lead one to suspect paroxysmal auricular tachycardia, auricular flutter, and ventricular tachycardia. Of these abnormal mechanisms, paroxysmal auricular tachycardia is the only one which, when responding to carotid sinus pressure, results in a sudden halving of the rate with restoration of the normal mechanism, the latter being maintained for relatively long periods of time. Ventricular tachycardia is uninfluenced by carotid sinus pressure; as previously stated, auricular flutter, when it responds, presents a slowing of the ventricular rate which is maintained only during the period of carotid sinus pressure. The final diagnosis is usually clearly established by means of the electrocardiogram.

The treatment of paroxysmal auricular tachycardia may be divided into (a) treatment during attacks, and (b) treatment between attacks. During the attack the application of carotid sinus pressure may be tried. In order to apply this pressure properly the patient should be placed in a recumbent or semirecumbent position. The carotid artery should be palpated as high up in the neck as possible and pressed firmly against the vertebral column. This vessel is frequently an elusive structure, and one must make certain that the carotid artery and not soft tissue of the neck is pressed upon. During the maintenance of pressure a stethoscope should be applied to the precordium, and as soon as the heart stops the pressure should be removed. Bilateral carotid sinus pressure should never be applied simultaneously. I have never seen any accidents result from the procedure when applied as directed. The patient himself, as a result of experience, frequently employs similar procedures, such as: pressure applied to various parts of the neck, particularly in the region of the carotid sinus; bending down; stretching the neck as far back as possible; holding the breath; or inserting the finger in the throat to induce vomiting. The rationale of all these procedures is vagal stimulation.

The following drugs may be given during the paroxysm if carotid sinus pressure fails to restore normal rhythm:

1. Digitalis intramuscularly, 2 to 3 cat units repeated in 1 to 2 hours if necessary. Intravenous administration has also been recommended, but this is rarely necessary. Carotid sinus pressure, if previously ineffective, often slows the heart beat after digitalis administration.

2. Magnesium sulfate, 10 c.c. of a 20 per cent solution, administered intravenously.

3. Calcium gluconate, 10 c.c. of a 10 per cent solution, administered intravenously. If the drug is efficacious, the paroxysm will cease immediately.

4. Quinidine sulfate, 5 grains (0.3 Gm.) administered intramuscularly at hourly intervals for 5 or 6 doses or more. Quinidine dihydrochloride, 5 grains (0.3 Gm.) dissolved in 20 to 50 c.c. of normal saline solution, may be given slowly by vein, or an ampule of 5 c.c. may be

given subcutaneously. Quinidine may be given by mouth, 3 to 5 grains (0.2 to 0.3 Gm.) every hour for 10 or more doses.

5. Mecholyl, 2/5 to 4/5 grain (25 to 50 mg.) subcutaneously. This often results in cessation of the paroxysm; however, this drug usually produces a profound fall in the systemic blood pressure. I have observed periods of ventricular fibrillation after its administration and advise caution in its use in the very young or the very old, and in asthmatic individuals. When the drug is given, one should always have a syringe of 1/50 grain of atropine ready for administration in the event of untoward effects.

6. Ipecac given by mouth in syrup form in a dose of 1 to 4 drams to induce vomiting.

7. Prostigmine methylsulfate, 1 to 2 c.c. of 1:2000 solution, given intramuscularly. While it may not be effective in itself, it increases the sensitivity of the carotid sinus about 20 minutes after its administration, and the previously insensitive carotid sinus is frequently rendered sensitive to stimulation.

8. Fugarin has recently been reported as effective in stopping attacks but has been found to be toxic in some cases.

9. Neosynephrine has been reported to restore normal rhythm within 35 to 70 seconds after the intravenous injection of 1/12 to 5/12 grain (0.5 to 2.5 mg.). The reversion of the supraventricular tachycardia is attributable to reflex cardiac inhibition elicited by the rapid rise in pressure in the carotid sinuses and the aortic arch.

10. Other sympathicolytic drugs, as, for example, tetraethyl ammonium chloride, have been reported as effectual in stopping paroxysms of auricular tachycardia.

The treatment between attacks involves ascertaining the precipitating cause of the attacks, if possible, and treating it. Nervous states, abdominal distention, excessive exertion, and allergic factors may all be provocative causes. If the paroxysms occur frequently, the following procedures are usually helpful: quinidine sulfate, 3 grains (0.2 Gm.) given 4 to 5 times per day; and digitalization, followed by a maintenance dose, which may be continued for months. Occasional cases are encountered in which these procedures do not suffice and the paroxysms continue. Thoracic sympathectomy, by reducing the sympathetic cardiac effects, has been successful in reducing recurrences.

Auriculoventricular Heart Block

Auriculoventricular heart block may be divided into 2 types: partial and complete. The first stage of auriculoventricular heart block is said to occur when the auriculoventricular conduction (P-R interval) exceeds 0.20 second. As the degree of block increases the conduction time becomes longer and longer until dropped beats occur; that is, the ventricles fail to respond to some auricular beats. As this condition progresses, the degree of block may increase to 2-to-1, 3-to-1, 4-to-1 or still higher degrees of auriculoventricular heart block. As the block further increases a stage is reached at which the ventricles fail to respond to any auricular impulses, with the result that these two chambers beat entirely independently of each other. When this stage is reached, the auriculoventricular heart block is said to be complete.

No treatment is required for minor grades of auriculoventricular heart block. The treatment is that of the underlying cause if ascertained, for example, rheumatic heart disease or other infection. Although digitalis may be administered to patients with auriculoventricular heart block, one should remember that higher grades of auriculoventricular heart block may be produced. Established complete heart block, however, is preferable to shifting degrees of block.

The higher grades of auriculoventricular heart block are usually chronic and fixed. The routine of the patient should be governed by his general fitness. All those who experience syncopal attacks should be warned of the danger of going about alone. I have seen such patients who have been treated for years for epilepsy.

The treatment of attacks of Adams-Stokes syndrome depends upon the underlying mechanism, which unfortunately cannot be determined during the attacks except by graphic means. The following measures may be used during the attacks: vigorous thumping on the precordium (more likely to help ventricular standstill); intracardiac injection of adrenalin. The occurrence of frequent seizures, one following another, is usually associated with a severe degree of cerebral anoxia and usually signifies a terminal event. I have seen this state improve after use of oxygen and the intravenous injection of aminophylline. To prevent the paroxysms, ephedrine sulfate, 3/8 grain (25 mg.) 3 times daily, or other sympathicomimetic drugs may be given. Thyroid extract and barium chloride have also been used. When these attacks are associated with the prefibrillary type of ventricular tachycardia or ventricular fibrillation, quinidine may be given prophylactically.

Extrasystoles

The interruption of a normal rhythm by premature beats followed by a pause, which usually, but not invariably, is compensatory, is a characteristic finding on auscultation. These pauses are often difficult to differentiate from those that appear during the Wenckebach phenomenon of partial and auriculoventricular heart block. When the period between the extrasystoles and the preceding normal beat is short, ventricular filling is small and the extrasystolic beat may not be sufficiently strong to open the aortic valve and will not produce a palpable pulse at the wrist. This results in a pulsus deficit.

The presence of a normal beat followed by an extrasystole repeated in regular sequence is characteristic of coupling. Clinically the coupling may be mistaken for pulsus alternans because of the alternation of weak and strong beats. The difference here lies in the rhythmic irregularity due to the compensatory pauses following the extrasystoles; in pulsus alternans the rhythm is quite regular. When extrasystoles occur frequently and arise from many different foci, the rhythm is indistinguishable from that of auricular fibrillation. Most extrasystoles disappear following exercise but occasionally become more frequent with exercise. The latter type is the more serious variety and is the result of myocardial damage. The diagnosis of extrasystoles and their exact origin may be determined by means of the electrocardiogram.

The treatment of extrasystoles is frequently rather unsatisfactory. Therapy should be directed to the underlying cause if it can be determined. If some type of cardiac disease is present, improvement of the heart by means of rest, diuretics, and digitalis may abolish the extrasystoles. Gastrointestinal disturbances, foci of infection and exogenous poisons should be sought for and removed, if possible. Frequently the cause cannot be found, and patients with the symptomatic variety of extrasystoles should be reassured that this is a phenomenon occurring not infrequently in normal hearts. If they prove troublesome to the patient, the following therapy is suggested: quinidine sulfate, 3 grains (0.2 Gm.) 4 or 5 times daily; papaverine, 1 to 3 grains (0.065 to 0.2 Gm.) 3 times daily; potassium acetate, 30 to 60 grains (2 to 4 Gm.) in a 25 per cent solution of peppermint water every 4 to 6 hours; bromides, 15 grains (1 Gm.) 3 times daily; or phenobarbital, 1/2 grain (0.03 Gm.) 3 times daily. Psychotherapy is indicated in those cases in which emotional problems may be a factor in the production of the extrasystoles.

Paroxysmal Ventricular Tachycardia

The diagnosis of ventricular tachycardia is difficult to establish clinically; it can be made definitely only by means of the electrocardiogram. It should be suspected whenever the ventricular rate varies from 130 to 180 per minute and is not slowed by carotid sinus pressure. Strong and Levine have mentioned 2 clinical findings of importance: (1) slight irregularity of the ventricular rate, and (2) variation of intensity of the heart sounds because of the superimposition of auricular and ventricular contractions at various beats. The electrocardiographic diagnosis of ventricular tachycardia may be established from the following: The beats of the paroxysms must be ectopic in origin and must conform to those observed as isolated extrasystoles before the onset of the paroxysms; the first beat of the paroxysm must bear the same relation to the preceding normal beat that an extrasystolic beat bears to the preceding normal beat; the ventricles must be observed to beat regularly at a rate of 130 to 180 per minute; and the auricles must also beat regularly, slower than, and entirely independent of, the ventricles. Occasionally ventricular tachycardia is observed in the presence of auricular fibrillation.

The differential diagnosis from the electrocardiographic standpoint involves any ectopic rhythm in which the QRS complexes are widened as a result of fatigue of one of the bundle branches incident to the rapid rate. Such widening of the QRS complexes may be observed in auricular tachycardia, nodal tachycardia, auricular flutter, and occasionally in auricular fibrillation with a rapid ventricular rate.

The drug of choice in the treatment of paroxysmal ventricular tachycardia is quinidine sulfate. This may be given orally, intravenously, or intramuscularly. The dose given orally or intramuscularly ranges from 3 to 5 grains (0.2 to 0.3 Gm.) 4 to 5 times per day. Sometimes larger doses, up to 10 grains (0.65 Gm.) per hour, are given for 10 or more doses. The intramuscular route is used when the patient is in some degree of shock and absorption by mouth may be slow and uncertain. Occasionally, quinine dihydrochloride, 5 grains (0.3 Gm.) diluted in 20 to 50 c.c. of normal saline solution, is effective when given intravenously. Quinidine acts in stopping a paroxysm of ventricular tachycardia by increasing the refractory period of the ventricle. Other drugs which have been used are potassium chloride, 15 grains (2 Gm.) every 2 to 4 hours, to supplement or reinforce the action of the quinidine; atropine sulfate, 1/30 grain (2 mg.) hypodermically; magnesium sulfate, 15 c.c. of a 20 per cent solution; and papaverine, 3 to 5 grains (0.2 to 0.3 Gm.) every 3 hours. The treatment with quinidine is effective in about one half to two thirds of the cases. The mistake often made is that the patient is not given enough of this drug.

Recently the intravenous use of procaine has been successful in stopping paroxysms of ventricular tachycardia, although its use is not without some danger. More recently, diethylaminoethanol, which is less toxic, has been used to stop the paroxysms. Procaine administered intravenously is hydrolyzed in the body to p-amino-benzoic acid and diethylaminoethanol. Diethylaminoethanol is apparently responsible for some or all of the pharmacologic properties of procaine (quinidine action on the heart, local anesthesia, analgesia). Diethylaminoethanol protects dogs under cyclopropane from the development of ventricular extrasystoles and ventricular tachycardia. It suppresses ventricular extrasystoles in humans. Six patients with ventricular tachycardia were successfully treated by this drug. It has no effect on auricular fibrillation or supraventricular tachycardia. The effective dose is much safer than the correspondingly effective dose of procaine. A single dose is completely metabolized in 8 hours. The dose in man ranges from 8 to 80 grains (0.5 to 5 Gm.) in 1 to 10 c.c. of sterile distilled water injected at a rate of 15 grains (1 Gm.) per minute. The effects are usually apparent within 5 minutes.

The prognosis of paroxysmal ventricular tachycardia is extremely serious, because it occurs in hearts which already are severely damaged and its duration for a prolonged period of time predisposes to ventricular fibrillation, which, as mentioned, is usually incompatible with life.

Ventricular Fibrillation

The diagnosis of ventricular fibrillation cannot be made clinically. It is presumed to be present in patients dying from coronary occlusion and digitalis toxicity. Its presence is strongly suspected during Adams-Stokes seizures; this is particularly so if during the attack the pulse rate, previously 20 to 40 per minute, jumps to 100 or over per minute. This is usually due to the prefibrillary type of ventricular tachycardia which usually precedes ventricular fibrillation. In patients subject to attacks quinidine sulfate may be given as a prophylactic measure. Administration of epinephrine during a seizure is contraindicated, since in itself it may produce ventricular fibrillation and thus may prevent spontaneous recovery. An attack of ventricular fibrillation may be stopped and normal rhythm restored by the use of procaine, diethylaminoethanol, and in occasional cases by electric shock applied to the exposed heart.

Treatment of Rapid Ectopic Rhythms When Exact Diagnosis by Electrocardiogram Is Not Available

Not infrequently one encounters patients with rapid heart rates which are the result of an ectopic rhythm. These patients are often in a severe state of heart failure and, in the absence of an electrocardiogram, the question often arises as to the proper treatment. The following summarizes the principles of therapy in these cases:

1. Over 90 per cent of ectopic rhythms with rates ranging from 140 to 180 per minute are due to rapid auricular fibrillation, auricular tachycardia, and auricular flutter.
2. These arrhythmias usually respond to digitalis action, and its administration may be lifesaving.
3. Digitalis is of no value in ventricular tachycardia; it is of course contraindicated when this tachycardia is the result of toxic digitalis effects.

Cardiac Arrest

The subject of cardiac arrest has assumed considerable importance because of the frequency with which it occurs during operation, especially in the chest, and the return to normal beating if the treatment is immediate and vigorous. Cardiac arrest is apt to occur during long operative procedures accompanied by varying degrees of anoxia, especially in thoracic operations in older individuals and in those with heart damage. The diagnosis may be suspected clinically when there is a sudden fall in blood pressure, and the heart beat and pulse are not palpable. The diagnosis is definitely established by means of the electrocardiogram or by direct visualization of the exposed heart.

The treatment should be prompt; a delay of minutes may be fatal. The chest should immediately be opened, the heart exposed, and the following procedures instituted: artificial respiration, blood transfusion (arterial), cardiac massage, and intracardiac adrenalin. Occasionally electric countershock has been successful in restoring the normal heart beat.

President's Page

THE NOBEL PRIZE

Bartolomeo Diaz, sailing from Lisbon in 1488, discovered the sea route to India after the rich overland trade was stopped by the fall of Constantinople. He brought back stories of hardship, and on his map named the southern tip of Africa, Cape of Storms. The King of Portugal changed that name to Cape of Good Hope. Not long after that, other explorers, with the same goal in mind, discovered America.

Egas Moniz, also of Lisbon, has recently been awarded the Nobel Prize in Medicine for two outstanding discoveries, cerebral angiography and lobotomy. The latter has echoes reminiscent of Portuguese genius. When the Second International Neurological Congress was held in London in 1935 there was included a symposium on the frontal lobes. The devastating effects of injury to these structures were thoroughly discussed by men from various countries. Egas Moniz was probably the only man in the audience who saw beyond the difficulties and the personality degradations of frontal lobe damage to the benefits that might derive from partial inactivation of these lobes.

As he tells the story in his Confidências, he had been pondering the problem of psychosis in terms of pathologically fixed synaptic patterns as the anatomic substrate. "To cure these patients we must destroy the more or less fixed arrangements of cellular connections that exist in the brain, and particularly those which are related to the frontal lobe." Fulton in his Withering Lectures recalls Moniz' suggestion and his own adverse reaction. Nevertheless, within a year Moniz had published his first monograph on psychosurgery.

Not long after that, other explorers, using the same method, discovered that operations on the frontal lobes could relieve intractable pain, and thus opened up a vast new field for lobotomy. The award of the Nobel Prize to Egas Moniz is a fitting reminder that great discovery comes to the prepared mind.

Walter Freeman

The Cancer Bulletin

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RECENT ADVANCES IN CANCER

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CANCER OF THE SKIN

J. E. ASH, M.D.

Washington

CAUSES AND CLINICAL TYPES

The skin is an organ that is exposed to a number of carcinogenic influences and this fact furnished one of the earliest clues to the causes of cancer. The classic incidences of scrotal carcinoma in chimney sweeps caused by the prolonged contact with soot, and in "mule spinners" from contact with oil, carcinoma of the lip in pipe smokers, and carcinoma of the abdominal wall from prolonged contact with the sooty charcoal heater that the Cashmere natives wear as a warming device, suggested the possibility that hydrocarbons were a factor. From the pursuit of this thesis has developed the present complicated and productive research that is attempting to solve the basic biologic phenomena of life.

In the meantime, carcinoma from these crude localized causes is no longer a problem in civilized practice, but the skin, nevertheless, continues to be just about the commonest if not the most important site of cancer. There are still several extrinsic factors responsible, two of which are arsenic and irradiation by X-rays or radium. Arsenical dermatosis with the premalignant keratoses results usually from the prolonged ingestion of inorganic arsenicals, of which Fowler's solution is one, and from prolonged exposure to arsenic-containing fumes in smelters. The dermatitis resulting from such organic arsenicals as salvarsan seldom results in malignancy. Irradiation dermatitis that includes premalignant keratoses as seen at the present time is usually the aftermath of the inexperience of the early years of the use of X-rays. Few of the pioneers in that field have escaped the tragic results of their enthusiasm and lack of knowledge of the diabolical long-range possibilities, and many a patient is suffering from disfiguring and malignant skin lesions that have developed years after exposure to X-rays for the treatment of acne or some other equally innocent dermatosis. Naturally, the localization of carcinoma resulting from X-rays is determined by the site of exposure. Premalignant arsenical keratoses develop most frequently on the extremities, including the usual and very suggestive involvement of the palms and soles. This localization is an important point of differentiation from senile keratoses, which have a predilection for the backs of the hands and the face.

Malignant lesions from both arsenic and X-rays are usually multiple. From both causes the tumors are by far most commonly of the squamous-cell type, although basal-cell tumors have been reported and more frequently from arsenic than from X-rays.

There are other local factors that are the basis for malignant changes in the skin, the most important being chronic ulcerative lesions, especially those of the lower extremities that are complicated by chronic stasis. The chronic varicose ulcer is the most frequent lesion involved, but frank carcinoma has developed sufficiently frequently in the chronic sinuses secondary to osteomyelitis as to become recognized as a special clinical entity; in fact, such carcinomas have been called "tibial cancer" because the large majority of them have developed on the basis of osteomyelitis of that bone. In this connection attention must be called to a very important diagnostic problem. Epithelium in all sites, especially squamous epithelium of the skin and mucosae, has a great tendency to proliferate in the presence of chronic inflammations, particularly those complicated by ulceration. This hyperplasia is frequently of such extent that it may simulate carcinoma most disconcertingly. It requires great experience on the part of the pathologist to differentiate this apparently wildly growing, deeply penetrating epithelium from carcinoma, and many a so-diagnosed carcinoma of the skin has been cured. It is particularly significant that the incidence of metastasis has been very low in the so-called carcinomas of chronic ulcers of the leg, and there is little doubt that many of these were in reality the benign hyperplastic change which the dermatologist has come to speak of euphoniously as "pseudoepitheliomatous hyperplasia." The writer has personal knowledge of such lesions as chancre of the lip and blastomycosis of the larynx, both infections notorious for stimulating pseudocarcinomatous hyperplasia of the epithelium, having been diagnosed and treated as carcinoma.

Other Premalignant Dermatoses

There are dermatologic entities other than those mentioned above which the dermatologist has come to look upon as the possible basis of cancer. These he calls the malignant dyskeratoses, properly designated precancerous lesions, because it has been the experience that ultimately but in varying percentages frank carcinoma develops in them. The most important and commonest is leukoplakia when the dyskeratosis involves a mucous membrane, or senile keratosis as it is called in the skin. This dyskeratosis resembles very closely, certainly histologically, that resulting from arsenic and irradiation, but the distribution is different and, from the etiologic standpoint, is significant. Senile keratosis is so predominantly a lesion of the exposed areas of the skin that it seems obvious that it is largely the result of the influence of the ultraviolet or actinic rays of light. It is true that there are additional factors involved. Exposure includes the influence of drying, irritating dusts, etc. The importance of exposure is evidenced by the lower incidence of cancer of the lips and face in the female sex despite their generally lighter pigmentation than the males and by the occupational distribution of the malignant lesions, for example, in seamen and farmers. Another possible influence on the sex distribution is that sebum that may be mildly carcinogenic through its lipid component is more abundant in the male skin. There is no doubt that smegma, an allied lipid, is carcinogenic. Carcinoma of the penis is almost unknown among the circumcised.

The melanin pigment of the skin offers some protection against the ultraviolet rays. The incidence of lip and skin cancer is much higher in the fair-skinned and is relatively uncommon in the dark races. The term senile keratosis is not used in a chronologic sense. It is one of several evidences of senescence of skin that, of course, occurs most commonly in individuals of advanced years but has a significant incidence in younger individuals. During the war leukoplakia and carcinoma of the lip were not of infrequent occurrence in soldiers in the age group below 30. The conclusion is that the aging changes in the skin are not simply the result of time but that they can be accelerated by other factors, the most important of which is ultraviolet light.

Included in the list of premalignant keratoses is Bowen's disease, a rare clinical entity that may in the course of years result in a squamous-cell carcinoma. Another one, fortunately also not very common, xeroderma pigmentosum, which seems to be based on a hypersensitivity of the skin to light, practically always results in frank squamous-cell carcinoma and then usually on the face or other exposed portions of the skin.

"CARCINOMA IN SITU"

In connection with the subject of malignant dyskeratoses or the premalignant lesions, objection to the use of the term "carcinoma in situ" must be mentioned. This term is based on the assumption that unusual cells appearing in epithelium should be called carcinoma in situ to suggest that in every such instance frank clinical cancer is bound to result. This is certainly not a true assumption even in leukoplakia; as a matter of fact, in the flat, smooth, white form of the lips and buccal mucosa a considerable percentage never become malignant, although histologically there are individually malignant-looking cells in the epithelial layer. The use of the term cancer or carcinoma, even with its "in situ" modification, carries a connotation that may lead to unnecessary concern and unnecessarily radical treatment. The situation is adequately covered by such clinical terms as X-ray keratosis, senile keratosis, and leukoplakia, because by definition they include the presence of malignant dyskeratosis; and by the proper understanding of this terminology between the pathologist and the clinician the situation can be handled on a more scientific basis.

Carcinoma occasionally develops in lesions that are not ordinarily considered among the precancerous dermatoses. This is true of both lupus vulgaris and lupus erythematosis. It is not clear whether this result is simply a reaction to chronic inflammation or whether additional carcinogenic factors are involved.

THE SENILE SKIN

There are several interesting points about other senile skin changes that may be mentioned. One of the commonest and most obvious clinically is the senile wart or seborrheic keratosis, the black, greasy, rough, elevated lesion which occurs most frequently on the face, neck and back, and is frequently multiple. This is an example, pathologically, of a benign dyskeratosis, but it is not infrequently interpreted by the pathologist as basal-cell carcinoma, although it practically never undergoes malignant change. The lentigines or senile freckle is a common lesion on the face and on the backs of the hands, as a flat, usually circular patch of chamois-colored thickening. The cells in this lesion are basaloid as in the senile wart, and, although usually innocuous, it occasionally is the nidus for a basal-cell carcinoma. These two lesions occur predominantly in older individuals, both male and female. This is an important point in differentiating them from pigmented nevi with which they may be confused clinically.

A fairly common lesion that may on rare occasions give rise to squamous-cell carcinoma is the so-called senile sebaceous adenoma, a pimply-like lesion occurring most commonly on the forehead but also on other portions of the face, rarely in females. It is a hypertrophy of sebaceous glands, hyperkeratosis of the hair-follicle epithelium, and an enlargement of the "pore" through the accumulation of keratin and sebum. This hyperplastic squamous epithelium may undergo dyskeratosis as it is seen in senile keratosis of the surface epithelium. For practical purposes, however, it is a benign lesion and is usually eradicated by simple excision.

DISTRIBUTION

There has been no satisfactory explanation for the peculiar distribution of squamous-cell and basal-cell carcinomas of the face. The latter is rare below the mouth line, while the commonest site for squamous-cell carcinoma is the vermilion border of the lower lip, rarely on the upper lip, but not uncommonly at the mucocutaneous junction of the nares, in the alar folds, on the malar eminences, and on the forehead. These are all sites of abundant supply of sebaceous glands; but there are, of course, none on the vermilion border of the lip. So much for the possibility of sebum being a carcinogenic factor!

Basal-cell carcinomas are most common on the face, particularly about the inner canthus of the eye, the edge of the lower eyelids and on the pinna of the ear. Clinically, basal-cell tumors are divisible into two groups. Those that develop superficially from the surface epithelium, that ulcerate early, are the more serious because they are aggressively invasive. This is the rodent-ulcer type. The deeper lying tumors that develop from hair-follicle epithelium are not as aggressive, usually grow slowly and may never give clinical evidence of malignancy. This is particularly true of the multiple congenital tumors that are most common on the eyelids and about the eyes.

Pathologically, it is not so simple to distinguish the potentially aggressive ones from the more benign forms except that those which arise from surface epithelium, the Krompecher type, are usually more massive, more freely invasive, and show less of the pseudoglandular and cystic architecture that are features of the tumors of hair-follicle origin, the Brooke type or trichoepithelioma. It is not safe, therefore, to depend on a presumptive diagnosis of benign basal-cell tumor; they should all be completely removed, either by surgery preferably, or by irradiation.

TREATMENT

Despite the apparently good results that have been obtained in some hands by irradiation, electrocoagulation or other non-cutting therapeutic measures, surgery is the method of choice for eradicating skin cancer. In the first place, claims of cure of cancer by other means than by excision are no doubt prejudiced by the inclusion of lesions that were not malignant. Aside from the fact that an accurate diagnosis cannot be established of a lesion not examined microscopically, methods other than surgical applied to a nevus can be very dangerous. It is usually possible to excise completely a tumor such as is seen in these days, but if the lesion is large and the clinical diagnosis of malignancy not clear, resort to biopsy should always be had. The site for this should be carefully chosen in order to include an active portion of the lesion as well as contiguous normal skin, and distortion by heat and poor fixation must be avoided, of course. The simple punch biopsy is surprisingly adequate in the majority of cases.

Education and propaganda reaching both the profession and the laity have done much to reduce the incidence of serious malignant lesions of the skin and mucous membranes. They have perhaps led to a certain amount of overconcern on the part of the patient about his lesions, but this is necessarily unavoidable and in the end perhaps a good thing. This awareness on the part of the patient, however, increases the responsibility of the profession, and particularly of the specialists, such as the dentist and the otolaryngologist, who frequently have the first opportunity to look the patient in the face or mouth and detect lesions, malignant and benign. Their responsibility lies in calling attention to discoveries that may be incidental to their real professional purpose. The patient should be referred for further clinical and pathologic studies if these are beyond his field of activities. The apprehensive patient can thus be reassured if his lesion proves to be benign, and the malignant lesion can be nipped in the bud before it has become irremedially aggressive.

Editorials

HOME MEDICAL CARE—A PILOT STUDY

The Health Department of the District of Columbia is developing a plan for the extended care of hospital patients in the home, based on similar programs conducted in other cities, principally in New York. In the latter city, the well-known Montefiore Plan and the Home Care Plan of the New York City Health Department are already proving the feasibility of discharging many chronically ill hospital patients to the home for continued treatment at lower costs and with better results to the patient.

The Public Health Service is coöperating with the District Health Department to the extent of providing a medical officer as administrative head. Certain funds have been made available through the Division of Chronic Disease and the National Cancer Institute. This study will serve as a pilot study for the local Health Department and the Public Health Service in evaluating the efficiency and practicability of an extended Home Care Plan administered by a local health department in coöperation with the public hospital and the local medical societies.

The philosophy behind the home care movement is based on the fact that many chronically ill patients are now residing in general hospitals at considerable expense to themselves or the community when there is no real need for their remaining in the hospital. They remain there because no provision has been made in most communities to make conditions in the home acceptable for their continued care outside the hospital, nor has any provision been made to bring into the home some of the few hospital type of services that are needed for the continued care of the patient.

Throughout the country the cost of maintaining a patient in a hospital has mounted during the last few years, but the cost of caring for the chronically ill patient in the home has remained about one fourth of the cost of hospital care. For example, the per diem cost for hospital care at Montefiore Hospital in 1948 was $13.00. During this same year the per diem cost for home care patients was about $2.50. Care in the home involves the assumption on the part of the patient's family of all of the domiciliary functions and costs, as well as a large percentage of the nursing functions and costs. It is in these categories that much of the savings occur.

In addition to the economic advantages of the home care plan, there are advantages that accrue to the patient from the very fact that he is convalescing in an environment with which he is familiar. Many of these home-care patients are well along in years. They have become accustomed to the home environment. They miss the home when they are ill. They feel better and do better when they are again permitted to return home.

When the services rendered by a hospital to the chronically ill patient are analyzed, it may be realized that the really essential hospital services are not numerous. For diagnostic tests, for surgery, for radiation therapy, yes, the hospital is necessary; but for prolonged treatment of the decompensated cardiac, the arthritic, or the terminal cancer case, most of the needed services can be rendered by personnel who come into the home.

Some of the types of personnel needed to staff the auxiliary services in a home care plan are

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia

social workers, nurses, physiotherapists, occupational therapists, dietitians or nutritionists, and physicians. The medical social worker is needed to help patients and their families solve many of the pressing socioeconomic problems that beset anyone who is ill for an extended period of time. Nurses are needed to go into the home at routine intervals to assist members of the family to care for the patient, to teach these people the basic things needed for the patient's care, and to help increase the confidence of the household in their ability to accept the responsibility of caring for the patient. Physiotherapists are invaluable in providing services to patients whose convalescence requires physiotherapy. They are helpful in teaching the family how to avail themselves of physiotherapy resources already in the home. Occupational therapists perform the same function in the home that they do in the hospital in assisting convalescing patients to find use for their idle time and retrain lagging muscles.

In the Home Care Plan being developed for the District of Columbia, the full coöperation of the medical societies and the medical school staffs has been sought since the provision of medical services under the Home Care Plan will spell the success or failure of the Plan.

The question has been asked, "If the presently conceived plan is limited to the care of the indigent sick, can it be adapted to a program for the care of all chronically ill patients at a later date?" The answer to that question can be a definite "yes." If the patient is a private hospital patient under the care of a private physician, there is no reason why administrative modifications cannot be made so that private patients may remain under the complete supervision of their own physicians at home but benefit from the auxiliary services that could be provided under the Home Care Plan.

In other words, there is no logical reason why the benefits of the services provided by the public health nurse, social worker, and physiotherapist should be restricted to the indigent patient and denied to the patient who is not medically ndigent. The provision of such auxiliary services would depend upon the request for such services by the private physician. That physician would maintain full control of his own patient at all times.

The aging of. our population, the advances made in the early diagnosis of chronic disease, the increasing awareness on the part of the general population of the advantages of early and continued medical and hospital care, have brought us to the brink of a decision. We must face a future in which the demands made on our medical and hospital structure will be pyramiding upward at an ever-increasing rate even though our level of health continues to improve. To meet this responsibility, we must develop, in the form of pilot studies, areas of medical experimentation from which we can derive the formulas that will open for us the doors to better and more economical patient care.

The Home Care Plan is one method that offers promise of making presently available medical and hospital resources do a better job and go further. It has been tried in several communities with results that, while not conclusive, have indicated a great deal of value. It behooves us to try this method on a limited scale in order to determine its true usefulness in a wide-scale community endeavor in the days to come.

One of the greatest benefits that can be derived from such a coöperative program will be the opportunity presented for all agencies interested in the health of the residents of the District of Columbia to work together on one team toward the common goal of patient benefit.

S. Shindell, M.D.
Acting Chief of the Bureau of Chronic Disease, D. C. Health Department

THE WASHINGTON 1950 HEART CAMPAIGN

The Washington 1950 Heart Campaign presents the District medical profession with an opportunity to acquaint the lay public with the part they can play in furthering the work needed to be done in the field of cardiac and circulatory diseases.

The campaign, now being conducted throughout the month of February, is a part of the $6,000,000 1950 Heart Campaign of the American Heart Association with which the local Heart Association is affiliated.

The local goal is $75,000. Funds raised will be used for an over-all program of community service, research and education. Part of the funds will go to the national organization for research in causes of diseases of the heart and blood vessels as well as other vital activities.

A number of outstanding local business and civic leaders are actively engaged in furthering the campaign. The Campaign Chairman is John M. Howard, General Commercial Manager of the Chesapeake and Potomac Telephone Company. Working as Vice Chairman and Treasurer is Ralph H. Mittendorff, Vice President of the American Security and Trust Company. Frank Parsons, President of the Frank Parsons Paper Company, and Davis Weir, President of the State Loan and Finance Corporation, are co-Chairmen of the Mail Solicitation Committee; William Norwood, General Directory Manager of the Chesapeake and Potomac Telephone Company, is Chairman of the Direct Solicitation Committee, and Mrs. Robert Moran, of the Heart Association's Board of Directors, is Chairman of the Benefits Committee.

The Washington 1950 Heart Campaign marks the second time the local Heart Association has undertaken to raise its annual funds as an independent health organization. Campaign headquarters, space for which was donated by the management, were opened at the Washington Hotel on Tuesday, January 17.

Funds obtained will be used to continue previous programs of the Heart Association, such as the In-bed Club for children with cardiac ailments, the work with the seven local cardiac clinics, and the distribution of educational and informational material on heart disease, and to expand a number of programs initiated since last year's first campaign.

Several of the new programs are of particular interest to the medical profession. The research committee headed by Dr. John A. Reisinger has established two local cardiac fellowships. Effective and continued use of specialized equipment recently donated to the cardiac clinic of Emergency Hospital is being obtained through one fellowship now held by Dr. Richard Bauersfeld. The fellowship serves a two-fold purpose, providing both competent utilization of the equipment and additional experience for a prospective heart specialist. In a second grant, laboratory assistance is being provided for an anticoagulant study being made by Dr. Benjamin Manchester in behalf of the George Washington University School of Medicine at Gallinger Municipal Hospital.

These are highly important projects and should be continued. Furthermore, there is need in the District for a larger number of cardiac fellowships in order to develop broader knowledge of cardiovascular diseases and provide advanced training for cardiac specialists.

Our occupational program is rapidly being established and is in operation with some 20 patients being given treatments weekly. The occupational therapist in charge of the program is Mrs. Nancy K. Osserman, formerly a member of the staff of the New York University-Bellevue Institute for Rehabilitation and Physical Medicine. The program is the first service of its kind to be made available locally to certain adults suffering from heart and circulatory diseases.

Last summer for the first time 90 children living in the District and nearby counties were given a two weeks' vacation at a specially organized cardiac camp in the Chopawamsic camping area near Triangle, Va. There these children did all the things normally healthy children would do on a camping vacation but with the difference that all of the activities of the cardiac camp were geared to the limited physical pace of the cardiac convalescents.

Two new activities, developed by the Educational Committee and the Scientific Council, are being started this month. As part of its work in promoting the dissemination of information on heart disease to both the medical profession and the lay public, the Educational Committee, of which Dr. Bernard J. Walsh is Chairman, has prepared a 30-page primer-type illustrated pamphlet designed to give information on what-to-do and where-to-go in Washington if one fears one has a heart ailment. The pamphlet is being printed and will be available for limited distribution as soon as it is received from the printer.

The Scientific Council, headed by Dr Hugh H. Hussey, Acting Chairman, presented the first of a series of regular monthly addresses and discussions on heart and circulatory diseases at the headquarters of the Medical Society on February 8. The meetings, which are planned to expand professional education in the cardiovascular field, will be addressed each month by nationally known cardiologists. The speaker for the first meeting, which was the Medical Society's regular scientific meeting, was Dr. William D. Stroud, Past President of the American Heart Association and Professor of Cardiology at the University of Pennsylvania Graduate School of Medicine.

The first objective of the national organization is to sponsor and finance research in the heart diseases. At least half the funds allotted to the national office will be utilized primarily to support individuals who are interested in making a career in cardiovascular research, and secondarily to support research projects.

The policy of the Association is to develop a continuing program of productive research within the broad field of cardiovascular diseases over the country as a whole. The program provides for the support of career investigators, various types of fellowships, and grants-in-aid for research projects recommended by the research committee of the Association's Scientific Council.

Both locally and nationally the programs outlined should commend themselves to the medical profession and the lay public as worthy of continued and increased support in order to help reduce disease, disability and death resulting from disorders of the heart and blood vessels.

J. ROSS VEAL, M.D.
President, Washington Heart Association

"—TO PROVIDE FOR THE COMMON DEFENCE,"

Below appears a chronological listing of certain developments in respect to civil defense planning:

June 12, 1947: The House of Delegates, American Medical Association, cognizant of its responsibilities in event of a national emergency and believing that "the effect of total war upon civilian populations" required "continuous study, planning and supervision," instructed the Board of Trustees to create a Council on National Emergency Medical Service.

July 26, 1947: The National Security Act of 1947 became law, including a provision for the establishment of a National Security Resources Board.

September 4, 1947: Board of Trustees, AMA, appointed the members of the Council on National Emergency Medical Service.

December 11, 1947: The Council held its organization meeting.

March 27, 1948: Secretary of Defense James S. Forrestal issued a directive creating an Office of Civil Defense Planning. Russell J. Hopley was appointed Chairman.

June 23, 1948: The House of Delegates, AMA, called on all state medical associations to organize committees on National Emergency Medical Service. (Many of these committees had already been appointed following the action of June 12, 1947.)

October 1, 1948: Russell J. Hopley forwarded his report to Secretary Forrestal.

About November 15, 1948: Report made public. (For five Sunday nights Walter Winchell blasted at the report.)

December 15, 1948: Arthur Hill resigned as Chairman of the National Security Resources Board. John R. Steelman was appointed Acting Chairman—only part time, considering his other jobs.

February 3, 1949: Nomination of Mon Wallgren to be Chairman of the National Security Resources Board was sent by the President to the Senate.

April 4, 1949: Termination of Office of Civil Defense Planning; duties turned over to the National Securities Resources Board.

May 17, 1949: Wallgren nomination withdrawn.

September 23, 1949: President Truman announced that Russia had the atomic bomb.

October 1949: National Security Resources Board sent letters to all state governors and the Commissioners of the District of Columbia, advising them to draw up their own plans for civil defense.

November 23, 1949: Russell J. Hopley died.

December 7, 1949: The eighth anniversary of Pearl Harbor. The House of Delegates of the AMA passed the following resolution[1]:

> WHEREAS, The American Medical Association, through its Council on National Emergency Medical Service, is deeply concerned about the medical and health care aspects of civil defense; and
>
> WHEREAS, The Council on National Emergency Medical Service is continuing to receive an increasing number of requests to advise state and county medical societies on matters related to civil defense planning; and
>
> WHEREAS, The Council has been unable to discern a clear picture of the Federal Government's plans for meeting the health and medical care problems of civil defense; and
>
> WHEREAS, The members of the American Medical Association stand ready and anxious to share the responsibility for those aspects of Civil Defense Planning for which their training and experience qualify them; be it
>
> *Resolved*, That the National Security Resources Board be requested to describe to the American Medical Association and its Council on National Emergency Medical Service the present state of preparation for civil defense in the event of a national emergency particularly as it relates to medical and health problems that might arise through the use of special weapons of warfare (atomic, biologic and chemical).

Same day: House of Delegates passed this further statement[2]:

> Civil Defense: In connection with the resolution dealing with civil defense passed today the committee notes with regret the lack of effective accomplishment by agencies of the Federal Government in respect to planning of a national civil defense. The committee is aware that long before our participation in World War II the American Medical Association had information as to availability, location, etc. of physicians and related medical services for such use as might be made of these for civil defense planning.
>
> It feels very strongly that in respect to medical and health aspects of civil defense, it is encumbent on the medical profession to exert positive national and local leadership at this time.
>
> The committee, therefore, recommends that the House urge the Council on National Emergency Medical Service to continue and to extend its constructive planning in this field. It is further recommended that the House urge on the Board of Trustees the national importance of this project and request they give it all possible support.

January 7, 1950: The National Security Resources Board issued to state governors a general release on treatment of atomic injuries.

January 15, 1950: Brig. General Gordon R. Young, Engineer Commissioner of the District of Columbia, announced he "will present" the District of Columbia plan on civil defense to the National Security Resources Board.

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[1] J.A.M.A., 1949, **141**, 1247.

[2] J.A.M.A., 1949, **141**, 1307.

January 20, 1950: Department of Defense announced plans to recruit 150,000 airplane spotters.

January 21, 1950: John R. Steelman appointed Paul J. Larsen as Chairman of Civilian Mobilization Office in the National Security Resources Board.

February 3, 1950: The National Securities Resources Board still has no full-time chairman.

The foregoing is a partial record of the interest of the medical profession in its responsibilities as citizens and as physicians in the planning of civil defense; it reflects the baffling idiosyncrasies of the Federal Government in the same field.

H. P. R.

In and Out of Focus

BY THE OBSERVER

". . . Unrehearsed and Spontaneous. . ."

Last November when it became generally known that Dr. Morris Fishbein would retire as Editor of the *Journal of the American Medical Association*, effective December 1, 1949, there was considerable speculation among physicians as to what his next move would be. Would he attend the AMA sessions in Washington early in December? Would he have a statement to make? If so, would he denounce his critics within the profession? What would his attitude be toward the AMA?

Then came the announcement that Dr. Fishbein would appear on Mutual Broadcasting System's Meet the Press, an "unrehearsed and spontaneous press conference," and "the most revealing half-hour in radio." Rumors were soon circulating to the effect that he would have plenty to say about the treatment he had received at the hands of AMA officials. The Meet the Press broadcast would provide just the forum he liked best. He could say just what he thought with no holds barred.

As it turned out, Dr. Fishbein had no such thing in mind. On the contrary it was evident he welcomed the chance to make it clear that his loyalties still were with the organization he had served for so many years. Equally apparent was his determination to keep the discussion free of bitterness and animosity.

Less can be said for some—not all—of his questioners on this broadcast. At the "press table" to "fire questions" at Dr. Fishbein were May Craig of the Portland, Maine, *Press-Herald*, Lawrence E. Spivak of the *American Mercury Magazine*, Nate Haseltine of the *Washington Post*, and I. F. Stone of the *New York Compass*.

As might be expected, an effort was first made to get Dr. Fishbein to air his grievances against the AMA. Producer Martha Rountree, in her opening remarks, concluded with the following:

"When it was first announced that Dr. Fishbein, at the request of the Board of Trustees of the American Medical Association, would relinquish his position of leadership, newspapers all over the world said that the Trustees had exploded a bombshell. It has been said, Dr. Fishbein, that for the past six months the Trustees forbade you to speak freely on controversial issues and to hold no interviews. Now that you're retired, we hope you will avail yourself of this opportunity to meet the press without reservations. As a starter, I see Mr. Spivak has the first question. . . ."

SPIVAK:

Well, Dr. Fishbein, can you tell us now why, at the height of your career, after 37 successful years, you retired from the AMA?

FISHBEIN:

Apparently it was the decision of the Trustees, who have complete authority over the editor, that the—those who favor nationalization of medicine had made the editor such a complete target for all of their attacks on medicine, and had personalized the opposition against socialized medicine in the editor, that it was creating great difficulty to win their fight under those circumstances.

SPIVAK:

Well, Dr. Fishbein, did the AMA think they would help their cause by an act which has been described even by your opponents, and I quote, as "rank ingratitude for outstanding service," "as a blow to the prestige of organized medicine," and as "downright unintelligent and even stupid"? Those were the comments in June when you were asked to retire. And how do you feel about this whole business?

FISHBEIN:

Well, you're asking me for a psychiatric opinion—namely, as to what a group of people under certain circumstances think—I am quite unaware what they might think. . . . Now, as to my own point of view, it has always been that an editor of any publication must have complete freedom of expression, and that he must conduct a vigorous campaign at all times against those things in which he does not believe. Finding it impossible to conduct a periodical of which I could be proud under those circumstances, it was mutually agreed that I retire.

SPIVAK:

Well, Dr. Fishbein, when in June they asked you not to speak on any controversial subjects and practically muzzled you, why did you continue? Why didn't you retire immediately, as so many of your friends felt that you ought to?

FISHBEIN:

I think it is no secret that having great pride in the accomplishment of having created a medical journal that is of acknowledged world leadership and nine specialistic journals, and having conducted a considerable number of other successful efforts, I thought it was quite desirable that young men be given at least some training to fill these various positions—five men have been chosen for those positions—and frankly, it was my hope, and still is my hope, that the American Medical Association goes on to greater and greater success.

At this point Mr. Stone delivered himself as follows:

Dr. Fishbein, let's get nice and rough. In view of his advocacy of compulsory health insurance, do you regard Mr. Harry Truman as a card-bearing Communist, or just a deluded fellow-traveler?

FISHBEIN:

I have never said of Mr. Truman any of the things which you accuse me as having said. Now, Mr. Truman is also entitled to his opinions—any President is entitled to his opinions, and if they happen to differ from mine, that doesn't create any particular hostility—I just think that he's mistaken and he thinks I'm mistaken.

STONE:

I was just joking, because you have expressed the view that compulsory health insurance is socialistic and communistic in the past in the *AMA Journal.*

FISHBEIN:

I am positive that compulsory health insurance is socialistic.

CRAIG:

Well, Dr. Fishbein, are you against all kinds of socialization—are you against socialized farming, for instance—for farm subsidies to keep up farmers' incomes?

FISHBEIN:

I make a difference in my definitions between what I call "social action" and "socialistic action"—one is political, the other is for the common good.

CRAIG:

Do you think giving adequate medical care to all the people is socialistic?

FISHBEIN:

I think it's good social medicine, and of course, it is my belief that Americans in general get better medical care than any people anywhere else in the world. And of course, Miss Craig, you having traveled throughout the world and having seen a great many hospitals and a good deal of medical care in other countries, must agree with me that Americans get better medical care.

CRAIG:

I agree that it could be better. May I ask you if you know that Dr.—that Mr. Ewing, the Social Security Administrator, tells us half our population —70 million people—get only about $3,000 or less a year, and do not have adequate medical care.

FISHBEIN:

Well, Mr. Ewing until recently was never considered an authority in this field, and most of the statistics he cites are so completely off from what any scientist or physician would accept as competent biometrics, that the least said about them, the better.

CRAIG:

Well, do you deny this one figure of his—that half of our people do not get medical—adequate medical care?

FISHBEIN:

I think the figure is utterly preposterous. I think that better—I think that the vast majority of Americans have access to reasonably broad medical care. Now, I do not say that everybody gets the best of medical care, but I know nowhere in the world where everybody gets the best of medical care.

STONE:

But, Dr. Fishbein, didn't your own *AMA Journal* say in 1939 that families receiving less than $3,000 a year could not cover their medical costs without outside aid?

FISHBEIN:

Why, Mr. Stone, those figures were recently put out by Frank Dickinson, Director of the Bureau of Economic Research, and the figures are not just what you said. . .I'll send you a pamphlet. . . .

STONE:

. . . no, no, tell the audience. . . .

FISHBEIN:

. . . on that subject—you can read up on it. . . .

STONE:

. . . tell the audience how I was wrong, then. . . .

FISHBEIN:

. . . You were wrong—You were wrong in the fact that . . . it can be well shown that better than 70—that far more than 70 million people in the United States get a high quality of medical care.

STONE:

Did I misquote your figures or not?

FISHBEIN:

You mean did I say. . . .

STONE:

Didn't the *American Medical Journal* in 1939 say that—that American families making less than $3,000 a year could not cover their medical costs without outside aid? Did it or didn't it?

FISHBEIN:

Not that statement, no. . . .

STONE:

Well, what statement did it make?

FISHBEIN:

The statement was made that a family with an income of $3,000 per year would have to budget carefully for medical care in order to be sure that they got sufficient medical care in time of need. Now, the

American Medical Association has never been a static organization. It has at one time opposed all forms of hospital insurance . . . but just as soon as hospital insurance was shown to be safe and dependable, and just as soon as the states had passed laws which guaranteed that dependability, then we supported hospital insurance.

The line of questioning took another turn when Mr. Spivak asked:

All right. Now, on the compulsory end of it—is the Medical—The AMA against compulsion for compulsion's sake?

FISHBEIN:

I think they believe that those nations which hope to be democratic must place as much responsibility on the individual citizen for the conduct of the intimate affairs of his life as can be placed upon him.

SPIVAK:

But how can they object to—to the compulsory tax when they themselves in their session voted a $25 compulsory tax on their membership, and threatened to throw out any doctor who didn't pay it?

FISHBEIN:

Of course, your entire use of the word "tax" is wholly without any warrant. The courts of the United States clear up to the Supreme Court have ruled that dues in a voluntary membership organization are not a tax and are not compulsory. You don't have to join the American Medical Association.

SPIVAK:

That they say about "a rose by any other name"—it's a tax, isn't it, Dr. Fishbein, to fight what they call socialized medicine?

FISHBEIN:

I would not call it a tax, because no one has to pay it unless he wants to remain a member in the organization. And that applies to all membership organizations.

STONE:

They . . . May I—May I proceed? If he doesn't remain a member of the organization, he's punished pretty severely, in his community?

FISHBEIN.

Well, if the people of the United States, who are a democracy . . . punish a man because he doesn't belong to the Odd Fellows or the Masons or the Klan, that is up to the people of the community, it isn't up to the man.

SPIVAK:

Well, Doctor, before we leave this point—and I don't mean to hog this thing—aren't all taxes compulsory?

FISHBEIN:

Taxes are compulsory, and we all pay them.

SPIVAK:

Yes, Well, then—then—then there's nothing too bad about the compulsory aspect of this. . . .

FISHBEIN:

I would like to point out in relationship to the school tax that one of the most jealously guarded rights of American citizens has been the right to control their schools in their own community, and never to delegate to the Federal Government any control over schools.

SPIVAK:

Well, if the states run this thing, as I believe it's proposed for the most part, is that all right with you?

FISHBEIN:

I may say that in the states, or the vast majority of the states, the state also has no control over schools. In the United States the privilege has been carefully guarded that the local community controls the schools.

SPIVAK:

Well, isn't this national health plan going to do pretty much that—turn things over to the states?

FISHBEIN:

Where the money is collected and sent to Washington and sent back to the states, which must meet certain criteria established by Washington, it is in no way the same as a school tax.

ROUNTREE:

Are you accepted in a first-class hospital and any other society if you don't belong to the American Medical Association?

FISHBEIN:

That again is left entirely to the hospitals. The hospital rules—and this has been sustained by the Supreme Court in the State of Maryland in a decision last year—every hospital has a right to determine through its own Board of Directors who will or will not be admitted to work in the hospital, and to establish the criteria under which they will be admitted.

Miss Craig and Mr. Stone then laid down the heaviest barrage of the broadcast.

CRAIG:

Well, Doctor, isn't it true that organized medicine has been against practically all the medical aid proposed? You were against workmen's compensation, you were against Federal grants-in-aid, you were against a public health board—you used to be against the voluntary group health insurance, although now you're advocating that, aren't you?

FISHBEIN:

A doctor who is trained as a scientist is accustomed to seeing competent evidence that a procedure will be for the benefit of the patient and not to harm him before agreeing that the procedure is sound. That he does in his practice. In the same way, social measures of any kind which are proposed on a theoretical basis are examined carefully and are studied as to whether or not they can achieve their objectives before they are approved. Now, obviously, again, as evolution goes on and technics improve and safeguards are developed and new types of control are developed in the community, the point of view changes—what was not acceptable becomes acceptable.

CRAIG:

You mean you always lag behind and you have to be forced into any kind of progress that. . . .

FISHBEIN:

Well, I point out frequently that the Congress of the United States is 10 years behind medical science in all of its actions, and that has to do with safeguarding the public against bad insulin, many such things as that.

CRAIG:

But, Doctor, what good does it do for medicine to go ahead if the majority of the people can't get the benefit of it?

FISHBEIN:

I have not admitted and I still do not admit that the majority of the people do not get the benefit of modern medicine in the United States. By far the vast majority of our people get the benefits of modern medicine.

STONE:

But, Dr. Fishbein, your admissions obviously come very slowly. Now, are you prepared to admit that it's a good idea to have these free public schools, which you say you approve?

FISHBEIN:

I believe that they—we have free public schools, and I believe that our private school system, which goes right along with the free public schools. . . .

STONE:

Well, are you opposed. . . .

FISHBEIN:

. . . has been a great advance in technic for advancing the quality of education, and that is obviously a portion of a properly-conducted democracy.

STONE:

Yeah, but are you—are you in favor of free public schools?

FISHBEIN:

I am in favor of free public schools.

STONE:

Well, this—this health insurance plan wouldn't outlaw their private doctors on the staff. . . .

FISHBEIN:

There is—there is not the slightest resemblance between pushing a six-year-old child into a school and teaching him to read and write, and taking a patient into a hospital to diagnose coronary thrombosis.

STONE:

Dr. Fishbein, a hundred years ago people like you fought just the way you're fighting, and have fought for generations against free public education with exactly the same arguments, and it took them just as long to wake up as it's taking you to wake up.

FISHBEIN:

Well, Mr. Stone, it just happens to be that you have a reputation for saying the kind of things you're saying, and I have a reputation for saying the kind of things I'm saying. And this being a democracy, we both go right along and hold our points of view. Now, I have a right to say that your point of view is emotional and that mine is scientific.

At this point, Mr. Haseltine, widely and favorably known to the medical profession in Washington, inquired:

Dr. Fishbein, do you believe that the American Medical Association is sincere in its present expressed desire to further the volunteery—voluntary prepaid health plan?

FISHBEIN:

I am so positive that they are sincere, that when I tell you that they have spent well over $500,000 of their own money promoting the volunteer plan, they certainly must be sincere.

HASELTINE:

In what period of time, Doctor?

FISHBEIN:

In a period of, roughly, now six years.

HASELTINE:

And how long was it first proposed that. . . .

FISHBEIN:

The voluntary—the voluntary hospitalization procedure was first proposed about 20 years ago—the Blue Cross procedure—and that has grown now to about 62 million people who carry voluntary hospitalization insurance. And I will assure you that if the American Medical Association and the doctors of this country had not supported it, it never would have reached 62 million.

HASELTINE:

Where have you had your most support? When has the AMA given it its most support?

FISHBEIN:

It has given it its most support as better and better controls were developed. Now at this very present moment Blue Cross does not in any single place cover the complete cost of hospitalization, and it isn't perfect yet. I think new technics have to be constantly developed and studied.

HASELTINE:

Do you think it can be developed to the point where it will cover full cost?

FISHBEIN:

I am working myself on two commissions that are especially concerned with trying to see whether we cannot reorganize hospital organizations' instruction and service to make it much more likely that costs can be fully covered.

HASELTINE:

Do you think it ever can be done, Doctor?

FISHBEIN:

I think it should be achieved within 10 years, possibly.

Mr. Spivak again directed his queries along an entirely different line.

Doctor, isn't the major question really whether we're going to get, under the new system of—of national health insurance, better or worse medicine?

FISHBEIN:

I think that is what concerns all of us. And I can tell you this—that if I personally were convinced that a nationalized medicine system would give the people of the United States, more people a high quality of medical service, I would be arguing just as much for it as I am now arguing against it.

SPIVAK:

Well, Doctor, isn't it true that under the Army you had complete socialization of medicine and you had a pretty high order of medical. . . .

FISHBEIN:

Now, I answered that one one time for Senator Pepper, so it's very easy to answer that one again.

SPIVAK:

Don't give me the same answer, though.

FISHBEIN:

Oh, th—it served with him. Now, the answer is simply this—that in the Army the doctor had absolute control over his patients. If you are willing that the doctors of this country shall tell everybody in the country exactly what they shall do when they're sick, and that they shall do that and nothing else—give the doctors the kind of almost totalitarian control over people that they had in the Army in times of sickness—why, then, of course, you abolish freedom entirely. And I would be bitterly opposed to setting up for the public of this country a regimented medical care.

SPIVAK:

In short, what you're saying is that the less freedom the people have, the better medicine they get?

FISHBEIN:

I would say that if a doctor can completely control a patient to the extent that—where the patient goes when he's sick, who takes care of him, what they do for him, what he eats, what tests shall be done—if a doctor can completely control that, he has a better chance with his patient under those circumstances than he does with a completely free patient.

SPIVAK:

But, Doctor, are you sure—do you know what you're saying? You're saying . . .

FISHBEIN:

Exactly—I know what I'm saying.

SPIVAK:

. . . that the less freedom there is, the better medicine.

FISHBEIN:

No, I—for instance, in a controlled experiment in a laboratory, where we work with rats and guinea pigs, we control the experiment—you can't do that with human beings. And in the Army you come closer to the rat-guinea pig set-up than you do in ordinary life.

SPIVAK:

Well, won't you come fairly close, but not as close as we want to come, if you have national health insurance?

FISHBEIN:

Well, the one country that has a completely nationalized health system in the world is Russia. The next nearest to it is Great Britain. In neither of those countries do the mass of the people get anything resembling the kind of medical service the people get in the United States.

SPIVAK:

Well, what about Sweden, which also has a system of health insurance and has pretty good medical . . .

FISHBEIN:

Now, the condition in Sweden is roughly that there are 6 million people, 3 million of them in Stockholm, and they're all Swedes, except for a few Russians that managed to get out of Russia. And when you're dealing with a homogeneous population of that type, you have an entirely different picture from where you have 146 million people in 48 individual states and a completely heterogeneous population.

Here the questioning became personal.

CRAIG:

Doctor, it's very difficult to sympathize with people unless you've experienced their troubles. Now, may I ask, please, if you were ever so poor that you couldn't afford adequate medical treatment yourself or for your family?

FISHBEIN:

Well, I remember when my father was a relatively poor man and my mother had 8 children. But my father always managed to get for her the best obstetrician in Indianapolis.

CRAIG:

I'm asking about yourself.

FISHBEIN:

Well, I was born under those circumstances.

STONE:

But you never had the experience of being really poor . . .

FISHBEIN:

I have never been destitute, Mr. Stone, but I will tell you this . . .

STONE:

I didn't say "destitute" . . .

CRAIG:

. . . adequate medical . . .

FISHBEIN:

. . . I will tell you this—that there isn't a poor person today in the city of Chicago or New York or any of our large cities who, if he uses reasonable intelligence, cannot get immediate access to good medical care.

STONE:

Well, Dr. Fishbein, let me just ask you one very simple question. Now, Americans are a very individualistic people, and yet it's quite obvious that all these different plans that you once fought—for voluntary health insurance, group medicine, and the President's program—are very popular. Now, why do you think the people—so many people—are so dissatisfied with the ordinary way of buying medical care?

FISHBEIN:

Do you think the President's program is still popular?

STONE:

Yes, I do.

FISHBEIN:

I happen to think it isn't.

STONE:

But answer my question, though. Why do you think so many people are dissatisfied?

FISHBEIN:

Well, I've heard of such a thing as propaganda. I have heard of people being worked on to cause certain beliefs which ultimately they change. I told you that the American Medical Association and the doctors of this country constantly change their opinions and under new circumstances develop new points of view. I have no doubt but what that will keep right on.

STONE:

But you haven't answered the question still.

FISHBEIN:

Well, I've answered it as nearly as I can. I . . .

STONE:

It's a very real question.

FISHBEIN:

Why, that's too bad.

STONE:

Doctor . . .

CRAIG:

Dr. Fishbein, don't you know—frankly, don't you know that the average family simply cannot afford medical care, particularly if they have children? Don't you know that?

FISHBEIN:

I am quite sure, Miss Craig, not only that I don't know that, and I'm not sure you know it.

CRAIG:

Yes, sir, I do know it!

FISHBEIN:

Well, that's where we come down to examination of the evidence. And . . .

CRAIG:

Don't you believe that the . . .

FISHBEIN:

And I have spent my whole life studying this evidence, and with you, it's a matter of this broadcast or maybe two or three previous newspaper studies. But if you will take people who have devoted their lives to studies of the problem of caring for the sick, you will discover that they are far better informed on the subject than most of the people who are out making the propaganda.

CRAIG:

Do you think they can pay hospital costs as they are today?

FISHBEIN:

I believe that with 62 million people insured against the cost of hospitalization, that we will reach in a short time 80 million, and that when we reach 80 million, the people in general will take very good care of those that are not covered.

The closing questions were asked by Mr. Spivak:

Doctor—Doctor Fishbein, Mr. Ewing in London tonight said that American doctors are not united against the President's health plan.

FISHBEIN:

Well, I don't know Americans of any kind who are completely in favor of any of the President's proposals—let's leave medicine out of it. Mr. Truman has some other proposals, and I don't know that farmers all favor farmers' subsidies.

SPIVAK:

Why haven't . . .

FISHBEIN:

I don't know that union labor all favors John L. Lewis.

SPIVAK:

Why hasn't the AMA taken a vote among its doctors on the health program?

FISHBEIN:

Well, I am quite sure that if they did take such a vote, you and I and many other people could predict exactly what the returns will be. And I may say that we have taken votes, and that these votes and every possible type of poll show that 85 per cent of the membership of the American Medical Association is bitterly and completely opposed to Mr. Truman's program.

Despite the rugged treatment he received at the hands of his questioners, Dr. Fishbein resisted the temptation to retaliate. His attitude and responses won favorable comments from friends and critics alike. Those with whom your Observer talked agreed with him, that Dr. Fishbein's conduct on this occasion reflected great credit upon the former editor and the medical profession.

T. W.

Our Living Past Presidents

JOSEPH STILES WALL, M.D., A.M., D.Sc., President 1926

Over the years the roster of the Medical Society of the District of Columbia has listed the names of many who have contributed to the advancement of science and the glory of the medical profession, but no record of accomplishment will stand out above that of our beloved Dr. Joseph Stiles Wall. His unselfish devotion to the highest ideals of the profession has left an enduring testimony that grows brighter with the passing of time. His achievements have earned international recognition and added luster to the efforts of his associates.

Dr. Wall was born in Washington, D. C., October 3, 1876, the son of the late Allen Wall of Pittsburgh and Elizabeth Stiles Wall of Boston. He received his early education in the schools of Washington, graduating from Central High School in the class of 1893. He received from that institution three awards: the first, a medal in competitive drill as the best drilled officer of the regiment of cadets in the manual-of-arms; the second, a scholarship, after competitive examination, to the School of Medicine of Georgetown University, which determined his career; and the last, in 1944, a "certificate of distinction" in medicine and social service by the Alumni Association.

From Georgetown University he received the degree of Doctor of Medicine in 1897, the honorary degree of Master of Arts in 1925, and the honorary degree of Doctor of Science in 1938. He began his graduate training as an externe in Garfield Memorial Hospital, following which he was resident physician at Children's and then Providence Hospitals. After postgraduate work in New York and in Oxford, England, he engaged in the general practice of medicine for a number of years, later confining his practice exclusively to the field of pediatrics.

For a period of 47 years from the time of his graduation, he was a teacher of medicine in the Georgetown Medical School. He was first Assistant to the Professor of Chemistry, later Professor of Physiology, and during most of his years of service, Professor of Pediatrics. During his years of service to the hospitals of the city, he has been attending pediatrician to the Foundling's, Providence, Georgetown and Gallinger Hospitals; at present he is consulting pediatrician to Doctors and Columbia Hospitals. For a period of over 50 years he has been attached to the Children's Hospital, now and for many years past, as its Chief-of-staff. For several years he was Medical Director of the Child Welfare Society of Washington, during which period the child health centers first established by this organization were increased in number from one to eight.

Dr. Wall has received a number of conspicuous awards and citations. From former President Herbert Hoover, then President of the American Child Health Association, he received the following letter, under date of January 23, 1923:

"It is a genuine pleasure to welcome you as a Director of the new American Child Health Association which has come into being through the amalgamation of the American Child Hygiene Association and the Child Health Association of America.

"We shall count on your help in the new organization as a most valuable asset, because of the already keen interest you have shown and great assistance you have given to the cause of child welfare in America."

Upon the occasion of his election to the position of President-elect of the American Academy of Pediatrics, his colleagues and friends in Washington held a dinner in his honor on April 15, 1944 and presented him with an embossed scroll.

After many years of service as Chairman of the Committee on Legislation of the American Academy of Pediatrics, Dr. Wall received from its Executive Board, at its annual meeting in 1946, a scroll which contained the following resolution of appreciation:

"WHEREAS: Joseph Stiles Wall has rendered exact and distinguished services, beyond and above what would be expected of him in the ordinary performance of his duties, in favorably presenting the position of the American Academy of Pediatrics on child heath matters before the Legislative Branch of the Federal Government and in performing many other services for the Academy, therefore, be it

"RESOLVED: That the Executive Board of the American Academy of Pediatrics desires to convey to Dr. Joseph Stiles Wall its continuing confidence and its appreciation and heartfelt thanks for carrying forward a task which to this point has been conducted with uncommon skill and wisdom."

Dr. Wall has been twice honored by the Medical Society of the District of Columbia. He was presented with a scroll on November 6, 1929, which read in part: "By his untiring devotion to the duties entrusted to him by the Society, by the generous sacrifice of his time and strength to its interests, and to the best interest of the people of the District of Columbia, by the exhibition of brilliant diplomacy, unfailing tact, distinguished ability and conspicuous moral courage, he succeeded in securing the enactment, by the Congress of the United States, of an adequate law to regulate the Practice of the Healing Arts in the District of Columbia."

On September 28, 1948, at the banquet held during the Nineteenth Annual Scientific Assembly of the Society, he was awarded a certificate "in grateful acknowledgement of his outstanding services to the medical profession of Washington and to the Nation, his contributions in the field of Pediatrics, and his unselfish devotion to the health needs of the children of the District of Columbia."

In July, 1947, he received unusual and distinguished recognition for his efforts in cementing friendly and intimate relationships among the pediatricians of North America and those of the Latin-American Republics, when President Grau Martin of Cuba conferred upon him the Decoration of Merit, Order of Carlos I. Finlay (who first named the mosquito as the carrier of yellow fever). The citation carried this inscription: "The President of the Republic of Cuba, from the authority he has received from the laws and at the request of the Supreme Council, confers the decoration of the National Order of Merit, Carlos I. Finlay, at the grade of Commander, on Joseph Stiles Wall, M.D."

(*Continued on page 120*)

THE DOCTOR'S PROGNOSIS*

JOSEPH S. WALL, M.D.

Past President, The Medical Society of the District of Columbia; Past President, American Academy of Pediatrics

There was a very wise and sagacious man among our Founding Fathers, Benjamin Franklin, whose wisdom, however, might be questioned a bit because he produced a publication called "Poor Richard's Almanac," in which, besides enunciating philosophical sayings of great value, he also undertook to make certain prognoses or predictions concerning the weather—all such, as we know, being of uncertain verity, subject to change without notice. The subject of our summary as the concluding paper may be viewed in a similar light.

Prognosis in case of the sick may be fairly predicted upon certain trends in the illness. In the realm of medicine, too, "trends" indicated in the discussions to which we have just listened with so much pleasure may point the finger toward a favorable prognosis, largely influenced by the active treatment afforded our communities by physicians, all members of county medical societies, who might and should unite to approve, aid, and abet the efforts of other groups in the community in securing better health for our citizens.

Unless we doctors act as leaders and not as camp followers or fellow travelers in community efforts for the health welfare of our lay associates through the local organizations which they may form, there is a colossus grown large and wealthy, the Federal Government, which would only too eagerly step into the picture by stretching its political imagination as well as the so-called "welfare clause," Article I, Section 8 of the Constitution, entirely ignoring Article X of its Amendments which states that "The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, OR TO THE PEOPLE." This means to the communities of our people. It may be said in passing that in no place in the Constitution may one find mentioned compulsory health insurance named as a function of the Federal Government.

What are some of the trends which are significant in considering the future outlook? Our discussions tonight have indicated in no uncertain manner what may be accomplished by private initiative and private endeavor throughout the states, affording us a bright prognosis, provided we of the county and state societies imitate the successful efforts of others, as pointed out to us tonight by the previous speakers.

We should absorb the content of these endeavors in community coöperation of which we have just learned, heed the principles upon which they have been successfully founded and conducted, as well as integrate the services of our own county societies in such coöperative efforts for the public good. Thus may we assure a prognosis favorable to the welfare of our people whose respect and gratitude will well repay the contributions of medicine in behalf of community life.

We take inspiration from Dr. Tuuri's description of the Mott Children's Center in Flint, Michigan, approved and aided by the Genesee County Medical and Dental Societies, whose direct association with the conduct of the project assures success. In his concluding sentences Dr. Tuuri has emphasized the "fine coöperation and encouragement of our program by the members of the county medical society" and that no word of criticism of the program has been heard from private physicians, which speaks well of the mutual efforts of all concerned in this progressive community project.

Dr. Scott has every right not only to ring the bell but to peal out from his carillon in Erie County a paean of praise and satisfaction for the effective working relationship of the physicians of the county with the Health Department in support of community health. Such a desideratum we might well emulate in all of our localities.

As you have heard through National Commander Craig, the American Legion has now under way an extensive program for community development in which health plays a most prominent part. Particularly in the advancement of child health the Legion is now actively coöperating with the American Medical Association, the American Hospital Association, the American Dental and Public Health Associations, and the American Academy of Pediatrics, the purpose of which is "to assure care and protection to the children of veterans of World Wars I and II and to improve conditions for ALL children."

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*Presented at the Sixth National Conference of County Medical Society Officers in Washington, D. C., December 8, 1949.

Former National Commander Perry Brown, in relinquishing his post to your Legion speaker of the evening on July 4, 1949, gave as the keynote of the National Program of Community Development the following: "Self-help is the greatest opportunity of them all in free America. It is the key to individual and community economic independence." Such a principle, enunciated on the day celebrating our independence, presages another favorable influence on the prognosis of sociomedical advance when furthered by an organization such as the American Legion, whose membership in the millions equally justifies the word legion, and whose good deeds, past and present, should rightly be rewarded by such an appellation.

Had not circumstances prevented Dr. Warren F. Draper from speaking tonight, we might have heard some interesting developments in the medical care of over a half million miners belonging to the United Mine Workers of America. I am privileged, by his permission, to tell you something of the organization on community levels of medical services now extended to miners through the facilities of a fund obtained from the imposition of a toll of 20 cents per ton on all coal mined, which permits the replacement of former plans based upon deductions from the wages of the men. About 70 per cent of the miners and their families had formerly received their medical services through prepayment plans of one sort or another. The administration and operation through some of the larger companies were outstanding, but at a majority of the mines the services ranged from adequate to very poor.

At a convention of the U.M.W. at Cincinnati in October 1948, it was stated that "It will be the purpose of the Fund to work toward the objectives of providing for the members of our organization in all Districts and in all local Unions a prepaid form of hospital service and medical attention. Arrangements will be made for the utilization of present hospital facilities under contract forms which will guarantee the standards of service, and the same will be true with the medical profession."

In a paper read before the American Public Health Association on October 26, 1949, Dr. Draper, the Executive Medical Officer of the United Mine Workers' Health and Welfare Fund, stated as follows: "Satisfactory relationships with the physicians throughout the extensive coal mining areas are due in no small part to the time devoted by the Area Medical Administrators in making direct personal contacts and in giving talks to medical societies on the objectives of the program and methods of procedure. Emphasis has been laid upon the responsibility of the profession to see that a good quality of service is rendered and for policing that service itself. . . . We may already rely upon outstanding members of the profession with whom we deal throughout the country for one hundred per cent coöperation in this respect. . . . They voluntarily determine the fees which they consider proper under the circumstances and their bills are received by us with the deepest sense of satisfaction and appreciation."

The trends in general of industry seem to be taking the same direction. In steel, the automotive industry, shoe manufacturing, airplane building, even among longshoremen, the demands of the workers, usually acceded to by the employers, for setting aside a few cents per hour from wages for prepayment health purposes seem to be prevailing. This spells out a species of private, not governmental health insurance.

The Doctor's Prognosis? In our mind it is good. These trends are toward the recognition of the value of good health, value to the worker and equally so to the employer. Even the most vociferous of labor leaders seem to make less audible their overtones of shrieking demands for Federal compulsory health insurance, having of late modulated their voices in pleading for the health care of those in the ranks of labor by having industry, and ofttimes labor alike, contribute by protective private insurance against the hazards of ill health and seeking such relief through the modality of community resources, community doctors, and community hospitals.

How can county, town and state medical societies insure a favorable prognosis? By stimulating and enlisting the aid and interest of their members in community affairs. By the formation of committees in the county society on Public Relations, Public Health, Child Health, Tuberculosis and Cancer Prevention; in short, the community health is your chief concern, not an incident but an obligation in the

(*Continued on page 119*)

THE CIRCUS*†

JOSEPH HALTON, M.D.

Sarasota, Florida

It is always a great day when the Circus comes to town. When the Ringling Brothers Circus came to our town, it had come to stay for it had moved its Winter Quarters from Bridgeport, Conn., to Sarasota. The real estate fellows needled themselves with dreams of future sales. To them it was the promised day of Israel. The Circus is an industry. It has a payroll. Thirty thousand people visit the Winter Quarters each year.

There were originally five Ringling brothers and one sister. Alf, John and Charles were patients of mine. All are now dead. Alf was the real circus brains, a stickler for proper conduct, a fanatic on the morals of the personnel. Charles was the sharp intellectual type, John the exhibitionist.

My contact with the Circus came through the illness of the orangutans. They were dying rapidly. I made twenty postmortem examinations. They all died from tuberculosis. The orangutans are stupid, surly animals. You have to be ever on your guard as their little trick is to grab you, or any other monk, by the hand and bite off the fingers.

Miss Congo was the first gorilla with whom I came in contact. When Professor Yerkes of the Peabody Institute of Yale came to Sarasota to make studies on the intelligence of Miss Congo, I had a happy time with him. In one test we hung bananas in the top of the cage. With a series of blocks, Miss Congo would build an arrangement whereby she could attain the height necessary to reach the bananas. When she died, I sent her brain to Carnegie Institute for a study of comparative anatomy with the brain of a girl 16 years of age. My findings are recorded in Professor Yerkes' book entitled "Almost Human." From Miss Congo, I went to John's favorite chimpanzee, which he kept at his Italian villa. This chimpanzee died of tuberculosis.

Then came the gorilla—Gargantua. He was the meanest creature of them all and for good reason. To get even with the first mate of an ocean liner for some ill treatment a sailor thought he had received, the sailor threw a cup of nitric acid into the face of Gargantua, which act accounts for Gargantua's distorted smile. Answering a call to the Winter Quarters to see Gargantua, who attendants thought was dying with dysentery, I took a 4-ounce bottle of paregoric and bismuth mixture. I always made 5 gallons of this mixture for the traveling doctor to take along when the Circus went on the road. This prescription I got from Dr. Steele, who had traveled with the Circus for thirty years.

There lay Gargantua limp as a rag, flat on his back with his head between the iron bars of his cage. I slowly poured the whole four ounces of Dr. Steele's favorite prescription down his throat. Not a pleasant job, as this brute had a lightning sweep of his paws that you could not dodge. John Ringling North found this out; I stitched up John North, and he stayed away from Gargantua. Gargantua did not die, or here my story would end. Six months later, I strolled to the cage. When he saw me, he reared up full height and fastened those mesmerizing eyes upon me. It was time for his loaf of raisin bread and quart of milk. So I fed him. He put on no act with me. When kindness has been shown to animals, there is some peculiar mental reaction between them and human beings.

THE PSYCHOLOGY OF THE CIRCUS

The attendance of the Circus is a study in mob psychology. People want to herd up or be with others of the tribe. They want to see how the other fellow acts when herded together with his kind. They are looking for different pastures. They want a change. On analysis, they want to see that fellow at the top of the tent take a chance on breaking his neck. If he misses his count by a split second his is a blackout. The crowd has had a thrill. Some are shocked. Others have had a Roman holiday. Let a Lillian Leitzel fall from the Big Top today and the show will play to a packed tent for the next two months. It will be interesting to this observer to note the gate attendance when the Circus returns to the state of Connecticut where the terrible fire occurred.

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* Read before the Seventy-fifth Annual Meeting of the Florida Medical Association in Belleair, April 12, 1949.

† Reprinted from the *Journal of the Florida Medical Association*, 1950, **36**, 411.

The Personnel of the Circus

The Great Loyal Rapenskeys, the Reffinacs, the Wallendas, the Lillian Leitzels, and many of the artists are not the coarse type of stake drivers that many people may think. They have a royalty of their own; seldom do they marry outside their class. Many date their ancestors to Queen Antoinette. The large percentage are foreign-born. Many of the men have seen service with the French Foreign Legion. They speak two or three languages and are well read. Their long life in contact with the public has made kindness a great virtue. Their sympathy for each other in time of need pulls the heartstrings of the thoughtful. They have large families and are devout Catholics. They are natural troubadours. No dirty gypsies in their society. No confidence men. They detest a phony. Phony is a word they use to express their disgust for make-believe persons. You see, their lives are real and they are keenly alive to anything that might cause someone to miss the count whether he be on the trapeze, in the tumbling act or in the daily walks of life. When mistakes are made, their generosity in forgiving would please the heart of a saint. They will leave the Big Top, but they will return. The doctors who travel with the Circus are the type of physicians who react to the wanderlust that many times assails you and me. How often would you like to take the wings of the morning and fly to the uttermost parts of the earth? Last year, I asked the physician, "What kind of a season did you have; were there many accidents or deaths?" He replied, "About 15 deaths but few accidents." Most accidents occur with the roughnecks who do the manual work. They travel with the Circus—sort of camp followers. The Circus management tries to keep them from too much drinking. Impossible—drinking is their escape.

The death of Charles Ringling was a great loss to the Circus. He contracted virus pneumonia in Atlanta. He was convalescing when I called to make my dismissal visit. On arrival, the palatial home was empty. The family were in the swimming pool. In a chair was Charles, dying from what appeared to be an infarct. I pushed all the buttons, whistled and called. No answer. I threw a chair through a glass porch door; they all came running. Nothing attracts attention like broken and falling glass. John was next door. He came over. Charles died in a few hours. The family left the room except John and me. In the quietude that hung over the room, John said, "Joe, I am the last on the lot." If you do not understand that Circus phrase, you should be on the lot after the Circus has gone. It is a queer feeling. There are ghosts about. You think of Kipling's "The captains and the kings depart."

There are many experiences in the daily lives of the Circus people. Humor predominates in them all. Their laughter is spontaneous and infectious. When the Circus goes off the road, they have one week in Sarasota of goodbye parties and what a time. Too much drinking—no. Moderation to these people is just as true a sign of great men as excess is of weak men.

After the week ends, they start the repairs of clothing. The women have a fine art of needlework. The men attend to new acts and new rigging. The women used to make their own costumes; but the Circus has been modernized, and that task is assigned to the specialist. During the off season, away they go to all parts of the Western Hemisphere. Some are off to Shrine circuses and winter fairs, others to various countries in South America and Cuba. In the spring they assemble in Madison Square Garden in New York a week before the opening. Many acts are assembled and the actors trained in the Winter Quarters at Sarasota many weeks before. The ballet teacher arrives. New costumes are fitted. Merle Evans is leading the band. The clowns are there. The elephants are in the Big Top. The rehearsal for the grand "Speck" (or spectacle) is taking shape. One is absent. Fred Bradna. He was the grand dominie who blew the whistle and cracked the whip for forty years. At the uplift of the hand, Merle Evans' band changes the tune from the "Blue Danube" to "A Hot Time in the Old Town" with never a missed beat. Fred Bradna is missing. The reason—while he was trying to save others, a tent pole fell across him, breaking both hips. They have done away with the whistle.

I Operate on an Elephant

It is said, "An elephant never forgets." I believe this to be true. If one does forget this incident, I certainly will not. Mr. Sam Gumpertz called me one day and said, "Dr. Joe, we have an elephant that is going to die. He represents about eight thousand dollars. We hate to lose him." Some months previously, the animal had had an abscess of his right shoulder. For a few weeks he had had another one at his right knee that needed opening. What should I take to cut through the hide of an elephant? I took every cutting tool I had.

On arrival, I found the preoperative preparations had been taken care of. The elephant had been well soaped, as had also the cement floor. Hay had been piled on the left side of him to lessen his fall when attendants applied the anesthetic by which he was to be under control. They had put a harness around his body which was connected to a three-way block and tackle. Eight men began to pull. It was an impressive sight to see the strength of the elephant pitted against the ingenuity of man. How that animal braced himself against the pull. He enjoyed it. He did not rear or buck. He thought they could not do it. He, like a good sport, was willing for the try. They slipped one over on him. When they had him at the right angle, two fellows with stake sledge hammers knocked his feet from under him, and down he went on the hay where they fastened him prior to the operation.

While the anesthetic was being administered, I looked over the operating room and definitely picked the window through which I was going if anything about the paraphernalia busted. I tried to cut into the abscess. I had brought an old phalangeal saw. It was a saw that men in the past used to amputate the phalanges. From out of the past, I had the instrument to cut or saw through the elephant's hide. I needed a probe. We utilized bailing wire that was around a bale of hay. A 4-foot fistula extended from knee to shoulder. My hands gave out in laying wide this tract; so I had a couple of flunkies continue the cutting. We laid it open, washed it out with the hose, and the operation was finished. So was I. When I started to cut that elephant, he lay as still as a mouse. He certainly was a coöperative patient. Postoperative directions: wash the wound out with a hose daily. Results: anatomically 100 per cent; functionally 100 per cent; economically for me? You guess on an eight-thousand-dollar patient.

THE SEX LIFE OF THE HIPPOPOTAMUS

Little did the male hippo know his loved one was arriving on a flat car. Nor did I until they began bringing in the injured. After fixing up five men, I got the history. Monday was the day. The flunkies were sleeping off their week-end debauch, beneath the palm trees. It was a lovely, quiet, semi-tropical day. The moss floated lazily in the breeze. The palm trees nodded their heads in sleepy lullabies. Then, by way of prelude, with the whistle wide open, escaping steam, screeching brakes and blackened smoke, the railroad train delivered the bride. It must have been that once in this universe the wind blew both ways at the same time. Down went the iron fence around the pool. Crash went the wooden sides of the flat car. The flunkies were forthwith awake and in action. The fight they thought was on. The meddlers were in for treatment. One of the flunkies philosophized by stating, "That's what you get for messing up somebody else's fun."

THE BLACK PANTHER

The fellow from the cathouse wanted to know if I would take an X-ray picture of his favorite cat. He thought she had lung trouble. "Sure, bring her in," said I. In due time, three nurses came running down the hall, one exclaiming, "Ye gods, Doctor, go see what they have on the elevator." I dern near fell down the shaft. This fellow had the biggest black panther I had ever seen. It was 6 feet long. I yelled, "What about him, Jim?" He said, "She is as good as a house cat." I placed three 14 x 17 cassettes under her and developed the film. Sure enough, she had lung trouble. Pneumonia. When I looked at those claws, I did not feel comfortable. The claws of the lion and the cats, as they call them, are very infectious. The foulest smelling abscess I ever opened, however, was from the bite of a camel.

HIS MAJESTY—THE CAMEL

Three camels had dropped dead. I decided I would perform an autopsy on one, remove the stomach and take it to Dr. Herbert Mills, the pathologist, for examination. We removed the stomach in toto, especially ligating both ends securely. That was the sanest thing I ever did. The stomach weighed 80 pounds. It took a bunch of flunkies to get it into the rumble seat of my Henry Ford. We had wrapped it in a large piece of tent canvas and securely laced it with stout tent robes. The day was hot. The roads to Tampa were not as those of today. It is now 50 miles to Tampa; then, it was 90. We wound, twisted, and dodged pine trees all the way through loose and deep sand until the royal stomach began to think he was back in the desert. By now this specimen became a personal thing, who was by his stench and rapid distention in the hot July sun giving me personal combat. He was getting nasty. I thought of the poet, Robert Service, and his book, "The Spell of the Yukon" with the poem, "The Cremation of Sam McGee." Remember the struggle he had with the frozen corpse? So on the road to Tampa we went. He (the stomach) was in the rumble seat and in that hot July sun was storing up his flatus like an organ blower awaiting the first note before the curtain call.

At our destination, he, like many a puffed-up person, had expanded to all the nooks and crevices of the rumble seat. Extraction was impossible. I deflated his stinking highness with an ice pick. By this time, he had a real body odor that you could actually taste. Into the freezing compartment we placed him until the morrow. When I registered at the hotel, people around the desk and in the elevators began to examine the soles of their shoes. Dr. Mills opened the stomach, and there was the cause. Piercing the mucosa of the stomach were numerous pieces of bailing wire, barbs from barbed wire and staples. In one section of a specimen for biopsy Dr. Mills found tetanus bacilli.

The Giraffe

Somebody said someone was poisoning the giraffe. Did you ever stop to think how much poison it would take to kill a giraffe? I did not believe it. So with hammer, saw, crowbar and maul, I made a postmortem examination of a giraffe. The stomach revealed nothing. Then a dumb flunkie yelled, "Doc, he got it in the neck." I had forgotten about the hemorrhage. I had just returned from the Mayo Clinic where there had been talk about esophageal varicosities. So on and up we went on the esophageal highway and found nothing.

The Death of the Ubangi Chieftain

From the Belgian Congo came the Chieftain of the Tribe of the Big Lips with his twelve wives, whose underlips contained a wooden disk the size of a meat platter. The disk was placed there in early childhood and replaced with increasing sizes as the age advanced. The objective—to make the women so repulsive that warriors from other tribes would not lead them into captivity. The Chieftain was a handsome specimen of the colored blood. The tsetse fly, malaria, syphilis and intestinal parasites had played no part in his development. He must have been one of nature's favored children. Acute mastoiditis laid him low at the Crile Clinic. Apparently everything had healed, but there was pus following the fascial planes of the neck. It was obligatory that a neck dissection be done. He had a blood stream infection. All we had at that time was the intravenous injection of mercurochrome. No sulfonamides or penicillin.

The hospital sounded like a duck pond when the twelve wives came to visit their Chief. The quack, quack, quack of the wooden disks in their lower lips was heard throught the halls. They were like a happy crowd of children. The Chieftain with all his dignity and poise felt a presentiment that his days were numbered. He began preparation for his last safari. Each morning he faced the east with the top sheet of his bedding draped over his head. A low chant was heard. Not a muscular movement could be observed. At eventide, at the setting of the sun, he faced the west and repeated the same maneuvers. In a few days, his ability to stand was at an end. With sheet about his head, he sat in a chair, and with the thump, thump, bump of his naked heels upon the floor in symphonic timing with his chant of death, the Ubangi Chieftain returned to the Spirit Land of the Congo.

Pineapple Avenue.

MEETINGS

Wednesday, March 1

Business Meeting

Wednesday, March 8

The Section on General Practice will sponsor the program. Speakers and subjects to be announced.

Wednesday, March 15

President's Night
Program to be announced.

Wednesday, March 22

The program will be presented by the *Section on Pediatrics*. Speakers and subjects to be announced.

News and Personals

The First International Congress on Diseases of the Chest will be held at the Carlo Forlanini Institute, Rome, Italy, September 17–20, 1950, under the auspices of the Council on International Affairs of the American College of Chest Physicians and the Carlo Forlanini Institute. Physicians who are interested in attending the Congress should communicate at once with Dr. Chevalier L. Jackson, Chairman of the Council on International Affairs, American College of Chest Physicians, 500 North Dearborn Street, Chicago 10, Illinois, or with Professor A. Omodei Zorini, Carlo Forlanini Institute, Rome, Italy.

The American College of Surgeons will hold a two-day Sectional Meeting at the Hotel William Penn, Pittsburgh, March 14 and 15. Day and evening conferences on timely surgical subjects are scheduled. There will be separate meetings for hospital personnel consisting of panels and round table discussions.

Members of the Medical Society of the District of Columbia and personnel of Washington hospitals are invited to attend this meeting. The Fellows of the College in Pittsburgh wish to assure all visitors that adequate hotel accommodations will be available and that they will be most welcome at all of the sessions.

The American Goiter Association will hold its next annual meeting at the Shamrock Hotel, Houston, Texas, March 9, 10 and 11, 1950. The program for the three-day meeting will consist of papers dealing with goiter and other diseases of the thyroid gland, dry clinics and demonstrations.

The Association for the Study of Internal Secretions and the American Diabetes Association are sponsoring, jointly, a **Postgraduate Assembly in Endocrinology, including Diabetes,** which will be held at the Roney Plaza Hotel in Miami Beach, Florida, April 3–8, 1950. The faculty will consist of 20 prominent researchers and clinicians in the field of endocrinology and metabolic disorders, gathered from the United States and Canada. The course will be a practical one, of interest and value to both the specialist and the general practitioner.

A fee of $75 will be charged for the course, with attendance limited to 100. Registration will be in the order of checks received and will close on March 3, 1950. Checks should be made payable to the Association for the Study of Internal Secretions and sent with letter of application to Dr. Henry H. Turner, Secretary-Treasurer, 1200 North Walker Street, Oklahoma City 3, Okla., before March 3. Hotel reservations should be made directly with the Roney Plaza Hotel, Miami Beach, Florida, and the hotel advised that attendance is for the Postgraduate Assembly. Special convention rates are offered to physicians who attend this Assembly.

The George Washington University School of Medicine will present six weeks of intensive postgraduate instruction for practicing physicians, beginning February 27, 1950. This is the fifth consecutive year in which postgraduate courses have been offered by the University. One week of instruction will be available in each of the following specialties: Anesthesiology, Pediatrics, Internal Medicine, Surgical Physiology, Obstetrics and Gynecology, and Psychiatry.

All instruction will be given in the George Washington University Hospital and will be full-time, Monday through Friday. During 1949 more than 400 physicians were enrolled, including 21 from foreign countries. Inquiries regarding registration should be addressed to Dr. Thomas M. Peery, Director of Postgraduate Instruction, George Washington University Hospital, Washington, D. C.

Physicians are invited to attend the **Dr. M. Alexander Novey Memorial Lectures in Obstetrics for the General Practitioner** at Doctors Hospital, Baltimore. The lectures, which began January 11 and will continue through April 5, are being given on Wednes-

CALENDAR OF MEETINGS

January 3	Special Committee of Executive Board
	Registered X-ray Technicians of Washington
January 4	Committee on Chronic Illness, United Community Services
January 5	Section on Neurology and Psychiatry
	Health Section, United Community Services
	Executive Committee, Gallinger Hospital
January 9	Committee on Public Relations
	Washington Orthopedic Club
January 10	Medical Officers' Reserve Units
	D. C. Dental Society
January 11	Scientific Meeting of Society
	Woman's Auxiliary
January 12	Washington Psychiatric Society
January 13	Committee on Public Health
January 14	Washington Psychoanalytic Society
	Washington School of Psychiatry
January 16	Committee on Public Policy
	Committee on Emergency Medical Service
January 17	Committee on Public Health
	Diabetes Lay Society
January 18	Scientific Meeting of Society
	National Heart Conference
January 19	Section on Radiology
	National Heart Conference
January 20	Grievan ceCommittee
January 23	Board of Censors
	Section on Anesthesiology
January 24	Section on General Practice
	Medical Officers' Reserve Units
January 25	Scientific Meeting of Society
	Washington Gynecological Society
January 26	Joint meeting, Special Committees of Executive Board and Medico-Chirurgical Society
January 27	Subcommittee on Speakers Bureau
January 30	Executive Board
	Section on Anesthesiology

day afternoon at 3 p.m. by members of the faculty of Johns Hopkins Medical School and the University of Maryland in the Nurses' Lecture Room at the Hospital, 2724 North Charles Street.

For reservations address Dr. William Schuman, Chairman of the Department of Obstetrics and Gynecology of Doctors Hospital, Baltimore. The complete program is posted on the bulletin board in the District Medical Society's building.

The American Board of Ophthalmology advises that practical examinations for acceptable candidates will be held during 1950 in Boston, May 22–26, and in Chicago, October 2–6. The same examinations will be held on the West Coast in January 1951.

Applications are now being accepted for the 1951 Written Test. They will be considered in order of receipt until the quota is filled. The Board's Executive Office is located at 56 Ivie Road, Cape Cottage, Maine.

The National Gastroenterological Association has announced its annual **Award Contest for 1950.** A cash prize of $100 and a Certificate of Merit will be given for the best unpublished contribution on gastroenterology or allied subject. Certificates will also be awarded those physicians whose contributions are deemed worthy.

Contestants residing in the United States must be members of the American Medical Association, while those residing in foreign countries must be members of a similar organization in their own country. The Association will present the award at its Annual Convention Banquet in October, 1950, and reserves the right of publishing the winning contribution and those deemed meritorious in its official publication, *The Review of Gastroenterology.*

All entries for the 1950 prize should be limited to 5,000 words, typewritten in English, in manuscript form, submitted in five copies, and accompanied by an entry letter. Manuscripts should be mailed to reach the headquarters of the Association, 1819 Broadway, New York 23, N. Y., not later than June 1, 1950.

The American Hearing Society calls attention to the **Kenfield Memorial Scholarship for 1950** in the amount of $100 which is offered to a suitable candidate who desires to teach lip reading (speech reading) with or without other types of hearing and speech therapy to the hard of hearing, and who meets the personal and educational requirements. The applicant must be a college graduate with a major in education, psychology and/or speech, plus professional training in lip reading.

The winner of the scholarship may take the Teacher Training Course from any normal training teacher or school or university in the United States offering a course acceptable to the Teachers' Committee of the American Hearing Society. Applications must be filed during March and April with Miss Rose V. Feilbach, Chairman, Teachers Committee, 1157 North Columbus Street, Arlington, Va.

Physicians are urged to bring this scholarship to the attention of any prospective teacher of lip reading who might be a suitable candidate.

The Section on Otolaryngology will hold its next meeting, March 21, at the Army-Navy Town Club. Dr. Laurence L. Robbins, radiologist at Massachusetts General Hospital, Boston, has been invited to address the members on "Dangers of Irradiation of the Nasopharynx." His paper will be discussed by Dr. Donald F. Proctor of Johns Hopkins Hospital, Baltimore.

Thirty members of the Section attended the joint dinner meeting with the Baltimore Section, January 17, at the Johns Hopkins Club in Baltimore. Members heard an address on "Paralyses of the Larynx" by Dr. Louis H. Clerf, Professor of Laryngology of Jefferson Medical College, Philadelphia.

The Section on Neurology and Psychiatry elected new officers at its regular meeting, January 5, in the Medical Society's building. They are as follows:

Dr. Jonathan M. Williams, *Chairman;* Dr. Paul Chodoff, *Vice Chairman;* Dr. Hyman D. Shapiro, *Secretary-Treasurer.*

Two scientific papers were presented: "Extradural Hemorrhage: Report of 100 Cases" by Dr. John P. Gallagher and "Surgical Treatment of Psychomotor Epilepsy" by Dr. Arthur A. Morris.

The Section on General Practice met in the Medical Society's auditorium, January 24. The speaker was Dr. Thomas Sutherland, Professor of Medical Jurisprudence, Ohio State University; his subject, "Legal Problems of the Physician."

The Section on Radiology held its regular meeting in the Medical Society's Library, January 19. Dr. Leo G. Rigler, Professor of Radiology of the University of Minnesota, was the guest speaker. He discussed "Acute Abdominal Conditions."

The Washington Psychiatric and the Washington Psychoanalytic Societies are holding a joint meeting on March 11 at 8:30 p.m. The guest speaker will be Dr. Jacob Finesinger, the new Professor of Psychiatry at the University of Maryland School of Medicine, who will discuss "Psychiatric Aspects of Fatigue." Present as a special guest will be Dr. Manfred Bleuler, who will speak on "The Present State of Psychiatry in Central Europe."

The annual meeting of the Washington Psychiatric Society was held on January 12. Dr. George Stevenson, President of the American Psychiatric Association, was invited to attend and speak to the group. He discussed the international responsibility of the psychiatrist. In his Presidential Address Dr. Addison M. Duval outlined the progress of psychiatry in the Washington area and described the early organization and work of the group.

Dr. Robert T. Morse took office as President for 1950. Officers elected were:

Dr. Norman Q. Brill, *President-elect;* Dr. Henry P. Laughlin, *Secretary;* Dr. Douglas Noble, *Treasurer.*

Drs. Duval, George N. Raines and David McK. Rioch were named to the Council of the Society.

At the meeting of the **George Washington University Medical Society,** January 20, Dr. Stewart Wolf, Associate Professor of Medicine, Cornell University Medical College, was the principal speaker. The subject of his address was "Relation of Life Stress to Bodily Disorders and Disease."

The Washington Ophthalmological Society heard an address by Dr. Wilfred E. Fry, January 9, at a dinner meeting at the Kennedy-Warren. Dr. Fry, who is Professor of Ophthalmology of the Graduate School of the University of Pennsylvania, spoke on "Macular and Peri-papillary Malignancy."

The Women's Medical Society met in the Doctors Hospital Solarium, January 10. Dr. June Shafer addressed the members on "Superficial Fungus Infections of the Skin."

Dr. Hugo V. Rizzoli was host to the **Osler Society,** January 16, at Rocco's Restaurant. Dr. B. L. Hardin, Jr., presented a paper on "Subacute Combined Degeneration of the Spinal Cord." A case report on "Radical Excision of the Parotid Gland with Preservation of the Facial Nerve" was given by Dr. Thomas Bradley.

The Medical Arts Society will meet at the Kennedy-Warren, March 9, when Dr. Blaine Harrell will be the speaker. He will discuss "Rectal Prolapse and Other Problems."

The District of Columbia Dental Society will hold its 18th Annual Postgraduate Clinic at the Shoreham Hotel, March 12–15, 1950.

The American College of Surgeons has published its approved list of hospitals for 1949. The list includes 18 hospitals for the District of Columbia: Central Dispensary and Emergency, Children's, Columbia, Doctors, Eastern Dispensary and Casualty, Episcopal Eye, Ear and Throat, Freedmen's, Gallinger Municipal, Garfield Memorial, Georgetown University, George Washington University, National Homeopathic, Providence, Saint Elizabeths, Sibley Memorial, United States Soldiers' Home, Veterans Administration (Mount Alto) and Walter Reed General.

With the exception of Homeopathic and Soldiers' Home, all of these hospitals are approved for residencies or fellowships by the Council on Medical Education and Hospitals of the American Medical Association.

Approved for graduate training in surgery and/or a surgical specialty by the American College of Surgeons are: Emergency, Freedmen's, Gallinger, Garfield, Georgetown, George Washington, Providence, Veterans and Walter Reed. These hospitals (with the exception of Veterans), together with Doctors and Sibley, are approved for training interns by the AMA's Council on Medical Education and Hospitals.

Eight hospitals have Schools of Nursing accredited by the State Board of Nurse Examiners. They are: Emergency, Freedmen's, Gallinger, Garfield, Georgetown, Providence, Saint Elizabeths and Sibley.

The following hospitals are operating Cancer Clinics which have the approval of the College: Doctors, Episcopal Eye, Ear and Throat, Freedmen's, Gallinger, Garfield, Georgetown, George Washington, and Veterans.

Dr. Gerhart J. Gordon, psychiatrist at the Delaware State Mental Hospital, Farnhurst, Delaware, has been appointed Chief Medical Officer in Psychiatry at **Gallinger Municipal Hospital.**

Dr. Gordon received his medical degree from the University of Berlin Medical School in 1930. He did postgraduate work at the University of Frankfurt and served for a year in Berlin Municipal Hospital before coming to the United States in 1934 to accept a position at the Delaware institution. He is a diplomate of the American Board of Neurology and Psychiatry and a member of the American Psychiatric Association. He will be the first to hold this post at Gallinger, which was created more than two years ago.

Dr. Paul R. Hawley has resigned as Chief Executive Officer of the Blue Cross-Blue Shield Commissions to become **Director of the American College of Surgeons,** effective March 1. A successor has not been chosen.

Dr. Malcolm T. MacEachern, the present Director of the College, will become Director Emeritus and will continue to head the hospital standardization program and will assist with other special activities.

Dr. Robert M. Hall, of Washington, D. C., has been appointed Secretary of the AMA's Council on National Emergency Medical Service. His appointment was effective January 1.

Dr. Hall graduated from Dartmouth College in 1939 and from Harvard Medical School in 1943. He was released from active duty with the Research and Development Board of the U. S. Army, December 19.

Dr. Fred L. Soper, Director of the Pan American Sanitary Bureau, was awarded the Theobald Smith Gold Medal at a joint meeting of the American Society of Tropical Medicine, the American Academy of Tropical Medicine, and the National Malaria Society, which was held in Tennessee, November 6–9. This award is made for contributions of the first rank to tropical medicine, and was awarded to Dr. Soper specifically for his work as Director of the Brazilian Yellow Fever Service in the eradication of two mosquito vectors, *Anopheles gambiae* and *Aegypti.*

Dr. Robert A. Lambert, Chairman of the Committee of Award, made the presentation at the dinner session, November 8. Following his acceptance of the medal, Dr. Soper gave an address entitled, "Reminiscences of a Tropical Tramp." Dr. Soper is an Associate member of the District Medical Society.

Several members of the District Medical Society participated in the scientific session sponsored by the **Phi Delta Epsilon Medical Fraternity**, which held its annual convention in Washington at the Hotel Statler the last week in December.

Dr. Alec Horwitz, chairman for the scientific session, arranged two panel discussions for December 28. Dr. Isadore Rodis was moderator of the first, on the use of antihistaminic drugs. Participating were Dr. Robert Stolar and Dr. Israel Zinberg, of Baltimore, who discussed their use in the common cold; Dr. Jerome A. Marks, New York, in gastroenterology; and Dr. B. Edgar Spiegel, New York, in seasonal and perennial allergies.

Dr. Samuel M. Dodek was moderator for the second panel discussion, on obstetrics and gynecology. Participating were Dr. Henry C. Falk, New York; Dr. A. Herbert Marbach, Philadelphia; and Dr. Dave Silberman of Baltimore.

Dr. Winfred Overholser was chosen to deliver the Weir Mitchell Oration at the College of Physicians in Philadelphia, January 7. The subject of his address was "Some Psychiatric Aspects of Delinquency."

Dr. Harry S. Bernton attended the meeting of the American College of Allergists in St. Louis, Missouri, January 18. At the meeting he presented a paper entitled, "On the Incidence of Sensitiveness to Corn Meal: a Critique of Diagnostic Procedure."

Dr. Lester I. Fox is presently serving as Chief of Medicine at the Station Hospital, Fort Monroe, Virginia.

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, headed by Dr. Henry A. Grennan, through which requests for speakers for lay groups are filled.

Date	*Speaker*	*Subject or Title*	*Organization*
December 30	Dr. James A. Gannon, Sr.	So You Are Forty	Ruth Crane Hour, WMAL
January 3	Dr. Cyril A. Schulman	Tumors of the Lower Extremities	D. C. Podiatry Society
January 9	Dr. Daniel L. Seckinger	Care of the Chronically Ill	Glover Park Citizens' Association
January 12	Dr. P. S. Constantinople	The "Washington Headache"—Colds and the Sinuses	Washington Nurses' Association
January 12	Dr. Maurice Friedman	Compulsory Health Insurance	Lions Club of Mt. Rainier, Md.
January 14	Dr. Leopold E. Wexberg	Psychiatry and Children	Group of parents of Hadassah
January 17	Dr. Daniel L. Seckinger	Chronic Illness—Its Relation to Nutrition	Central Business Association, Inc.
January 18	Dr. Frank J. Eichenlaub	Compulsory Health Insurance	Friendship Citizens' Association
January 20	Dr. Daniel Blain	Attacking the Nation's Number One Health Problem	Women's National Press Club
January 24	Dr. John B. Ross	Blood Transfusions	Coöperative Nurses, Inc.
February 1	Dr. Sidney Ross	Behavior Problems of Children	Greenway Parents' Discussion Group
February 13	Dr. Herbert P. Ramsey	Compulsory Health Insurance	Health and Safety Committee, Business and Professional Women's Club

MEMBERSHIP

The following applicants for membership were duly elected to membership at the meeting of the Executive Board, December 19, 1949, in accord with Amendment XI, Section 2, of the Constitution and By-laws of the Society:

Active Members

Daniel J. Abramson, 2014 R Street, N.W.
J. E. Ash, 915—19th Street, N.W.
Edwin R. Ballinger, 1801 Eye Street, N.W.
Francis A. Barrett, Jr., Providence Hospital
James D. Brew, Jr., Georgetown University Hospital
Alice Drew Chenoweth, 1503 N. Jefferson Street, Arlington, Virginia
Frederick W. Coe, 1801 Eye Street, N.W.
John J. Curry, 4543 Nebraska Avenue, N.W.
Natalie Johnson Deyrup, 4103 W Street, N.W.
Alfred Dibbs, 308 East Capitol Street
Charlotte Donlan, 300 Indiana Avenue, N.W.
Adolph Friedman, 6600 Luzon Avenue, N.W.
Bernard S. Gordon, 94 Galveston Place, S.W.
William V. Hare, National Cancer Institute, Bethesda 14, Md.
John F. Harrington, 1346 Michigan Avenue, N.E.
Robert C. Hawkins II, 1835 Eye Street, N.W.
Hubert B. Haywood, Jr., 2000 Massachusetts Avenue, N.W.
Jesse Brice Hopkins, 700 East Capitol Street
William P. Hynes, 3700 Massachusetts Avenue, N.W.
Harold N. Kagan, 5331 Kansas Avenue, N.W.
William Gordon Leary, Jr., Georgetown University Hospital
Reginald S. Lourie, Children's Hospital
Frank G. MacMurray, 2224 Decatur Place, N.W.
Robert E. Martin, Children's Hospital
Robert H. Mitchell, 1835 Eye Street, N.W.
Warren L. Moorman, Jr., Sibley Memorial Hospital
James M. Moss, 1835 Eye Street, N.W.
Robert J. O'Donnell, 2701—28th Street, N.W.
Philip S. Owen, National Research Council, 2101 Constitution Avenue, N.W.
Edwin P. Parker III, 2015 R Street, N.W.
Arthur F. Passarelli, Providence Hospital
John R. Pate, Southwest Health Center, Delaware Avenue and Eye Street, S.W.
Thomas M. Peery, 901—23rd Street, N.W.
Charles E. Rath, Jr., Georgetown University Hospital
James L. Royals, 901—20th Street, N.W.
William F. Runge, 3432 Connecticut Avenue, N.W.
James Patrick Scanlon, Georgetown University Hospital
Cyril A. Schulman, 1907 Eye Street, N.W.
Lawrence D. Summerfield, 1241 Pennsylvania Avenue, S.E.
Richard L. Whelton, Gallinger Municipal Hospital
Herbert Wisotsky, 101 Audrey Lane, S.E.
Charles E. Woodson, 1827—23rd Street, N.W.

Associate Members

Manning W. Alden, 8004 Newell Court, Silver Spring, Md.
Andrew J. Brennan, 7725 Aberdeen Road, Bethesda, Md.
Howard C. Curtis, 3601 Connecticut Avenue, N.W.
David Eden, 1217 Valley Avenue, S.E.
Bela Gondos, 1720 Connecticut Avenue, N.W.
Paul Haak, 8801 Colesville Road, Silver Spring, Md.
William B. Hagan, 3306 Rhode Island Avenue, Mt. Rainier, Md.
Major James L. Hansen, M.C., U.S.A., Walter Reed General Hospital
John S. Haught, 3306 Rhode Island Avenue, Mt. Rainier, Md.
Charles Heilman, 5503 First Street, N.W.
Philip E. Jones, 904 Ellsworth Drive, Silver Spring, Md.
Andrew E. Rudnai, 1025 Connecticut Avenue, N.W.
William J. Weaver, Jr., 3800 Mt. Vernon Avenue, Alexandria, Va.

The following applicants for membership will be voted on at the meeting of the Executive Board, March 27, 1950:

For Active Membership

Aris Carpousis, Hahnemann Medical School—1946
James E. Fitzgerald, Georgetown University—1948
Peter N. Horvath, University of Pennsylvania—1942
Seymour Itscoitz, University of Pittsburgh—1934
Beryl Conklin Kester, George Washington University—1948

For Associate Membership

J. Gordon Lee, McGill University—1928
Ernest A. Sarao, Georgetown University—1945
J. E. Schneider, D.D.S., Georgetown University—1940

For Resident-Intern Membership

Edward James Carry, Georgetown University—1945
Elbert T. Phelps, University of Nebraska—1944

Recent changes in membership status:

Active to Associate

Joseph M. Cocimano
Camp S. Huntington
Gordon M. Smith

Resigned
Associate

George D. Adams

Five New Life Members

Chapter II, Article IV, of the Constitution of the Society, reads as follows:

Life members shall be active members who have been active members for a total of forty years. They shall have all of the privileges of active membership and shall be exempt from paying dues and assessments.

Our honor roll now numbers 81. The congratulations of the Society are extended to:

Seniority Number		Date of Membership
498	Henry W. Kearney	January 26, 1909
508	A. Y. P. Garnett	April 27, 1909
513	Henry H. Hazen	June 22, 1909
515	F. Scott Avery	June 22, 1909
518	Henry R. Schreiber	October 26, 1909

who have for forty years been on the roster, meeting all dues and assessments and lending their support to the Society by frequent attendance. Their status is now elevated to Life membership.

BOOK REVIEWS

Selective Partial Ablation of the Frontal Cortex. Columbia-Greystone Associates, edited by Fred A. Mettler, M.D., Associate Professor of Anatomy, College of Physicians and Surgeons, Columbia University, New York. Price, $10.00. Pp. 530, with 123 illustrations. New York: Hoeber, 1949.

For more than a century reports have appeared in the world literature describing phenomena attributed to the frontal lobes. Some of the work has been on an experimental basis and some has been based on clinical experience with frontal lobe tumors and trauma. Further stimulus to investigation of frontal lobe function came in 1936 when Egas Moniz first published his work on prefrontal lobotomy. Since then a vast literature has accumulated on frontal lobe physiology and psychosurgical procedures and results.

The Columbia-Greystone Associates is a coöperative group of scientific workers who embarked upon an extensive project designed to investigate all possible phases of frontal lobe functions and to check the data already published on the frontal lobes. Forty-eight psychotic patients were chosen from the inmates of a New Jersey mental hospital. All 48 patients had intensive investigations in the form of medical surveys, psychiatric studies and thorough psychological testing. Twenty-four of the patients underwent selective ablations of various areas and combinations of areas of frontal cortex. The testing was carried out on this group preoperatively and postoperatively. The second 24 patients were utilized as a control group and were subjected to the same testing as the operative group. In addition to these 48 patients there were another 8 patients who underwent the standard prefrontal lobotomy as described by Freeman and Watts. The project began in 1946 and the present volume is a report of their work to date.

The book is a collection of the papers of the 43 investigators who comprised the group. The contents are divided into five sections. The first section gives a complete outline of the project and describes the details of the manner in which the problem was handled. In this first section there are also complete data on the surgical procedures employed, and a chapter on cytoarchitecture by Dr. Mettler, which is outstanding for its detail and clarity. Section II is devoted to the preoperative and postoperative medical surveys of the patients. Section III is the largest portion of the book and contains very complete data on the psychological investigations carried out. Section IV describes the psychiatric, neurologic and pathologic investigations which were done, and Section V offers three separate summaries of their findings in anatomy and physiology, psychology and psychiatry.

The most striking thing about the whole presentation is the tremendous amount of work and planning that has gone into the project. Because of the method of presentation there is considerable repetition, but the work has produced a large amount of data which is presented in a scholarly, unbiased manner. The greater part of this data shows no demonstrable difference between the test results preoperatively and postoperatively. While this is disappointing it serves to correct a lot of the many misconceived ideas that have been formed about the function and physiology of the frontal lobes. The number of patients investigated is small and the authors point this out repeatedly, but in spite of this the work is complete and an invaluable adjunct to the literature on psychosurgery and cortical physiology.

The bibliography is good but not too complete.

L. Stanley Durkin, M.D.

Normal Values in Clinical Medicine. F. William Sunderman, M.D., Ph.D., Professor of Experimental Medicine and Clinical Pathology, University of Texas Postgraduate School of Medicine; Chief of The Department of Clinical Pathology and Director of Clinical Research, M.D. Anderson Hospital for Cancer Research, Houston, Texas, and Frederick Boerner, V.M.D., Late Associate Professor of Clinical Bacteriology, Graduate School of Medicine, University of Pennsylvania, and Assistant Professor of Bacteriology, The School of Medicine, University of Pennsylvania; Bacteriologist, The Graduate Hospital of Philadelphia; Advanced Bacteriologist, Pennsylvania Department of Health. Price, $14.00. Pp. 845, with 237 figures and 413 tables. Philadelphia: Saunders, 1949.

This text is supposed to contain every standard value known in the field of medicine—and possibly it does.

The scope and the contents are amazing, but I don't think any one physician would have use for more than one quarter of this book.

On the other hand, it's nice to have so much detail on so many aspects of medicine in one place.

N. J. C.

BOOKS RECEIVED FOR REVIEW

Acknowledgment is made of the following books which have been received for review:

Handbook of Medical Management. MILTON CHATTON, A.B., M.D., Instructor in Medicine, University of California Medical School, San Francisco; SHELDON MARGEN, A.B., M.D., Clinical Instructor in Medicine and Research Associate in Medicine, University of California Medical School, San Francisco; AND HENRY D. BRAINERD, A.B., M.D., Assistant Clinical Professor of Medicine and Pediatrics, University of California Medical School, San Francisco; Assistant Clinical Professor of Pediatrics, Stanford University School of Medicine; Physician-in-charge, Isolation Division, San Francisco Hospital. Price, $3.00. Pp. 476. Palo Alto, Calif.: University Medical Publishers, 1949.

Essentials of Obstetrical and Gynecological Pathology, 2nd ed. ROBERT L. FAULKNER, M.D., F.A.C.S., Assistant Professor of Gynecology, The Western Reserve Medical School; Associate Gynecologist, University Hospitals of Cleveland, Ohio, AND MARION DOUGLASS, M.D., formerly Assistant Professor of Gynecology, The Western Reserve Medical School. Price, $8.75. Pp. 357, with 300 illustrations, including 3 color plates. St. Louis: Mosby, 1949.

Medical State Board: Questions and Answers, 8th ed. R. MAX GOEPP, M.D., formerly Professor of Clinical Medicine, Graduate School, University of Pennsylvania, and Professor of Medicine, Woman's Medical College of Pennsylvania, AND HARRISON F. FLIPPIN, M.D., Associate Professor of Medicine, Graduate School, University of Pennsylvania. Price, $7.00. Pp. 663. Philadelphia: Saunders, 1950.

Physiology of Heat Regulation and the Science of Clothing, edited by L. H. NEWBURGH, M.D., Professor of Clinical Investigation, The Medical School, University of Michigan. Price, $7.50. Pp. 457, with 78 figures and 38 tables. Philadelphia: Saunders, 1949.

Clinical Pathology—Application and Interpretation. BENJAMIN B. WELLS, M.D., PH.D., Professor of Medicine, University of Arkansas School of Medicine, Little Rock, Arkansas. Price, $6.00. Pp. 397. Philadelphia: Saunders, 1950.

Electrocardiography—Fundamentals and Clinical Application. LOUIS WOLFF, M.D., Visiting Physician, Consultant in Cardiology, and Chief of the Electrocardiographic Laboratory, Beth Israel Hospital; Associate in Medicine, Harvard Medical School. Price, $4.50. Pp. 187, with 110 figures. Philadelphia: Saunders, 1950.

From the Hills—An Autobiography of a Pediatrician. JOHN ZAHORSKY, M.D. Price, $4.00. Pp. 388. St. Louis: Mosby, 1949.

Acknowledgment is also made of the following reference book:

Transactions of the American Clinical and Climatological Association from its Sixty-first Annual Meeting, November 8, 9 and 10, 1948, The Homestead, Hot Springs, Virginia, volume LX. Pp. 301. Nashville, Tenn.: Ambrose Printing Co., 1949.

STANTON WREN HOWARD, A.B., M.D.

(1880–1949)

Dr. S. Wren Howard, a Life member of the Medical Society of the District of Columbia, died December 31, 1949, at Garfield Memorial Hospital, after a long illness. He resided at 1328 Underwood Street, N. W.

Dr. Howard was born in Wheeling, West Virginia, May 2, 1880, the son of Stanton M. and Mrs. Mary Eliza Howard. He received his A. B. degree from Mount St. Joseph's College in Baltimore and his medical degree from Georgetown University in 1903.

He interned at Children's and Foundling Hospitals and was resident physician at Providence Hospital and Kingston Avenue Hospital, New York. He had also served at various times on the staffs of Doctors, Georgetown University and Garfield Hospitals and had courtesy privileges at all Washington hospitals.

In 1907 he began his practice in Washington at 2725 13th Street, N.W., and maintained his office at the same place during most of his medical career, a period of more than 40 years. He was forced to retire because of ill health about a year ago.

Dr. Howard became a member of both the Medical Association and the Medical Society of the District of Columbia in 1908, and a Life member in 1949.

He was a Fellow of the American Medical Association, and a member of the Elks.

His wife, Mrs. Anna Miller Howard, survives him. He also leaves a daughter, Mrs. Mary Patchell, of Philadelphia; a son, William Howard, of New York City; and a sister, Mrs. Mae Bloedorn, of Washington.

JOHN HENRY BULLOCK, M.D.

(1891–1950)

Dr. John H. Bullock, an Active member of the Medical Society of the District of Columbia, died suddenly, January 13, 1950, en route to his office at 766 Rock Creek Church Road, N.W. He lived at 1301 Ingraham Street, N.W.

Dr. Bullock, whose parents were John H. and Sallie Bragg Bullock, was born on a farm near Oxford, North Carolina, October 17, 1891. He received his academic training at Trinity College, Durham, N. C. (now Duke University) and his medical education at the Medical College of Virginia in Richmond. He was graduated in 1915.

After interning for a year at the United States Marine Hospital at Staten Island, New York, Dr. Bullock was surgeon for the U. S. Coast and Geodetic Survey in the Philippines, from 1916 to 1918. When World War I began he enlisted as First Lieutenant in the Medical Corps of the Army and served until 1920. Before entering private practice in Oxford, N. C., he took some training in X-ray at the New York Postgraduate Hospital. He practiced in Oxford for five years, until 1925, when he moved to the District of Columbia. He practiced in Washington continuously since that time except for the period he spent in Vienna in 1932 in the study of surgery.

Dr. Bullock was elected to Active membership in the District Medical Society in 1927. He was a member of the American Medical Association, the Southern Medical Association, and the Railway Surgeons. He was a Mason and a Shriner.

Surviving are his wife, Mrs. Louise Currin Bullock; a daughter, Mary Jacqueline, a senior at Rollins College, Winter Park, Fla.; and two sisters, Mrs. W. N. Thomas and Mrs. John Ray Watkins, both of Oxford, N. C.

Emotions and Gynecological Pain—Rogers

(Continued from page 76)

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Doctor's Prognosis—Wall

(Continued from page 106)

practice of medicine. The members of your committees must be those having a personal, active interest in the work to which they are assigned; no drones should be permitted in the hives of industrious workers for the public weal.

Your county societies with efficient committees will command the interest and aid of allies too numerous to list in detail, but a few of such are the Health Departments, the American Legion, the Parent-Teachers, the Red Cross, the Kiwanians and Rotarians, the Junior Leagues, and other civic bodies imbued with community spirit.

Therefore, in conclusion, in forming a prognosis, let us bear in mind that this free America in which we live has no classes nor castes, no peasants nor serfs, as exist abroad. We believe in the sovereignty of man and of woman. The driver of mules on a tow-path, the splitter of rails in the backwoods, even the small business man may hold the highest office in our democracy.

Another trend of recent years which seems of prophetic significance in community life and of great importance to the future of medicine is the growth of private prepaid hospital and health insurance through the Blue Cross and the Blue Shield movement, which year by year, with increasing momentum, is bringing protection to millions of our citizens.

In the report of the Council on Medical Service in the *Journal of the American Medical Association* of November 9, 1949, it was stated that during 1948 the estimated number covered for hospitalization was 55 million and for surgical expense benefits, 30 million. The final survey figures of the year ending December 31, 1948 proved these estimates to be most conservative. On June 30, 1949, the Council reports: "By adjusting the midyear 1949 accident and health insurance premium increase and adding the reported enrolment figures from Blue Cross type and Associated Medical Care plans, it seems reasonable to assume that on June 30, 1949 approximately 65 million Americans were protected by hospitalization insurance and approximately 38 million Americans were insured for surgical benefits."

The prognosis has been brightened tonight by the inspiring address of National Commander Craig of the American Legion, assuring us in no uncertain terms of the loyalty of the Legion to the principles of individual and community freedom. Two generations of millions of forceful men and women cannot fail in contributing their share of influence to the cause of right living in the community and throughout a land heretofore unshackled by restraints upon the independence of the individual.

Webster defines a community as a "body of persons having common rights, interests and privileges." It is our belief as a prognosticator that in the exercise of these attributes, vigorously maintained against the onslaught of ill-advised interference, we shall continue to be able to call our country the land of the free, nor shall that birthright of freedom be sold for a mess of pottage brewed by a paternalistic government or its political potentates!

Our Living Past Presidents—Wall

(*Continued from page 104*)

Dr. Wall was President of the Medical Society of the District of Columbia in 1926 and President of the American Academy of Pediatrics in 1945. He is a Fellow of the American Medical Association, a member of the Southern Medical Association, and an Honorary member of the Sociedad de Pediatria de Cuba. In 1947 he was elected an Honorary member of District IX, the Latin-American division of the Academy of Pediatrics, "as a recognition of his great coöperation in favoring the improvement of Latin-American Pediatric Science."

As a speaker, Dr. Wall's services are much in demand. In December, during the recent Clinical Session of the AMA, he addressed a meeting of the County Medical Society Officers, known as the Grass Roots Conference. His address, entitled "The Doctor's Prognosis," is published in this issue of the ANNALS.

On May 29, 1909, Dr. Wall married Agnes Reimer of New York. They have one daughter, Frances, and a granddaughter, Mrs. Peggy Wall Hines.

To those whose privilege it has been to share his companionship over the years, it is not alone his richly deserved honors that endear him to us but rather those indefinable qualities of character that have won such a legion of devoted friends and made him an outstanding figure in our professional and community life. Few, if any, pediatricians, or indeed, physicians, can hope to duplicate the record that is already his, but his work will ever stand out as an elevating influence to the coming generation following in his chosen field of pediatrics. That he may be spared many more years for his inspirational leadership is the fervent wish of his colleagues.

EDGAR P. COPELAND, M.D.

MEDICAL ANNALS
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THE SURGICAL TREATMENT OF PSYCHOMOTOR EPILEPSY*

ARTHUR A. MORRIS, M.D.
Instructor in Neurosurgery, Georgetown University School of Medicine

THROUGH the routine use of the electroencephalogram during operation for post-traumatic epilepsy, it became increasingly evident that a striking correlation existed between the elimination of certain specific electrographic responses and the therapeutic results obtained. For example, if an electric focus consisting of random high voltage spikes or sharp waves superimposed upon a focal slow-wave abnormality was eliminated by subpial cortical resection of the scar and the surrounding epileptogenic zones, the therapeutic result was good.[1] From this stimulating observation in man, an extensive series of experiments was performed in monkeys and the electric, histochemical, pathologic, and physiologic properties of the epileptogenic zones were studied.[2]

In the monkey with chronic recurring focal convulsive seizures it was shown (1) that the cortex adjacent to the scar was responsible for the origin of the seizures, (2) that, when this area was removed, the animal was free from convulsions, (3) that removal of this area resulted in an elimination of the focal high voltage spikes in the electroencephalogram and, furthermore, there resulted considerable improvement in the general electroencephalogram, and (4) that the removed tissue responsible for this specific electrographic alteration was high in cholesterase, as was the epileptogenic zone in the human.[2] Thus, the obvious conclusion was that specific electric foci, as defined, arise from neurons which constitute the epileptogenic area. If this were true, the necessity for resecting cerebral scars could be minimized when advisable. It is necessary to determine the therapeutic results of removing these specific epileptogenic, electric foci which are not associated with cortical scars, neoplasms, hemangiomas, and malformations. A series of investigations has been performed to ascertain the therapeutic results of excising electrically altered cortical areas adjacent to scars, cysts, and malformations and will be reported at a later date. This monograph is concerned with an analysis and discussion of the results following anterior temporal ablations in 5 patients with psychomotor epilepsy in whom there was no specific alteration in the gross or histologic pathology of the tissue removed.

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* The Tenth Davidson Lecture, presented before the Medical Society of the District of Columbia, October 12, 1949.

Types of Paroxysmal Syndromes

Three major paroxysmal syndromes are distinguishable: convulsions, petit mal seizures, and psychomotor seizures.[3, 4, 5] Subclassification is certainly desirable, but since this monograph is concerned with psychomotor seizures, a detailed classification will be avoided.

Convulsions are common, occurring in 1 out of 200 persons in the general population.[6] These may be generalized or focal types, depending on an analysis of the aura and the location of first convulsive movement. The generalized types are benefited by diphenylhydantoin sodium U.S.P. (Dilantin)[7] and methylphenylethyl hydantoin (Mesantoin),[8] but frequently the number of petit mal attacks is increased. Phenobarbital is also beneficial but often increases the number of psychomotor seizures.[9] The generalized convulsive state in the idiopathic forms is associated with bilaterally synchronous spikes in the electroencephalogram in addition to a host of other generalized changes. It is surprising how many patients who have been diagnosed by clinical means as having "idiopathic or cryptogenic epilepsy" show focal electric changes.[10]

Petit mal seizures are common in children and tend to diminish with increasing age after the 18th to 20th year.[5] These are associated with 3 per second wave and spike abnormality in the electroencephalogram (figure 1) and are benefited more often by trimethadione (Tridione).[11]

Psychomotor seizures and psychic equivalents occur in the presence or absence of convulsions or petit mal seizures. Psychomotor epilepsy usually goes unrecognized or is misdiagnosed because it has no present diagnostic classification. These cases are classified under hysteria, psychopathic personality, schizoid psychosis, etc., and are seizures which rarely can be controlled by medication. The essential manifestations of psychomotor seizures may be as follows: An aura is rarely present but when present may consist of déjà vu, feelings of unreality, or visualization of recurrent scenes. Confusion is the initial observation without loss of consciousness. The person moves about slowly, showing purposeful but poorly coördinated movements. His manner is frequently negativistic, and he gropes about, chewing and swallowing. Rage or fear with screaming or shouting may predominate. The movements are simple and seem automatic, yet other persons show very elaborate and purposeful movements, their speech being unaffected except as regards content. Between seizures psychic disorders and hypersomnolence may be present. The following behavioral elements have been observed by Gibbs et al[12]:

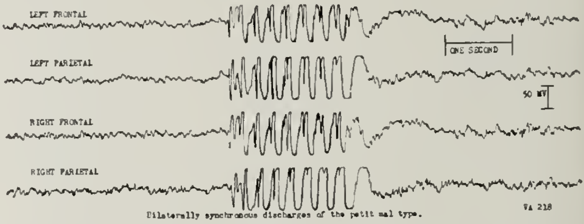

FIG. 1. Electroencephalogram showing bilaterally synchronous high voltage spike and dome discharges of petit mal epilepsy. Compare with figures 2, 3 and 7. This electrographic method of differentiating petit mal from psychomotor epilepsy or psychic equivalents is accurate, since only 1 patient in 8,000 with spike and dome discharges fails to show clinical petit mal seizures.

Incoördination
Negativism
Staring
Pushing
Groping
Searching
Singing

Chewing
Swallowing
Spitting
Smacking the lips
Laughing
Crying

Rubbing
Plucking
Undressing
Shouting
Screaming
Confused talking

A clear differentiation should be made between post-ictal confusion states and psychomotor seizures, for the former group may show organic lesions of the temporal lobe.[13]

THE PSYCHOMOTOR FOCUS

Approximately a year ago a technic was devised for localization of spike foci in psychomotor epilepsy[14] and is illustrated in figure 3 of case 1. Essentially the technic of phase reversal was employed by placing electrodes through a burr hole in each temporal region and over the surfaces of the temporal lobes. The focus of abnormality could then be demonstrated at the anterior tip of one temporal lobe, which then would spread to involve the other head regions in a characteristic fashion (see figure 3, case 1). Subsequently it was shown that this technic is unnecessary, and the technic of obtaining monopolar electroencephalograms during sleep has proved efficient in localizing the psychomotor focus.[12]

The outstanding feature of the psychomotor discharge is the positive spike in all leads except the temporals, where it appears as a negative discharge. If only one temporal area is affected, as is true in the cases which are being reported, the focus of negative spikes in the anterior temporal region can be made to stand out clearly by disconnecting the ear lead on that side. The spread of the psychomotor discharge is the characteristic feature, since not all spikes in the temporal region spread to give rise to the psychomotor type of discharge (figure 2).

TYPE OF PATIENT SELECTED FOR OPERATION

Patients whose seizures were controlled satisfactorily by medication were not selected for operation. The patients operated upon had combinations of all of the anticonvulsant medications for many years. None of them was able to work, and each was a family burden, a fact which represents a marked disability prior to operation. Postoperatively the medication was maintained at the same or less than the preoperative dosage, in order to allow evaluation of the results of the surgical procedure. All patients fulfilled the requirements of the electrographic psychomotor focus localized to one temporal lobe. None of them had obvious brain lesions such as scars, vascular lesions, tumors, etc.

REPORT OF CASES

Case 1.—J. M., a 22-year-old man, had suffered from grand mal and psychomotor seizures since the age of 5 years. His psychomotor seizures had been classified previously as "petit mal," but no electrographic confirmation could be obtained. A detailed analysis revealed attacks of ictal confusion, during which he was sometimes automatic. Apparently the retrograde amnesia produced a state which simulated a loss of consciousness. He talked during an attack, his face flushed, he swallowed 3 or 4 times, and then made tortuous facial grimaces with repeative turning of the head. He would then resume his pre-ictal conversation or performance. There was a definite aura, as evidenced by the fact that he would run to his mother each time, yet he had amnesia for this fact and the entire attack, sometimes prolonged for 10 minutes. In order to be certain that these were not petit mal seizures, numerous attacks were observed during the taking of electroencephalograms. There were no bilaterally synchronous slow rhythms characteristic

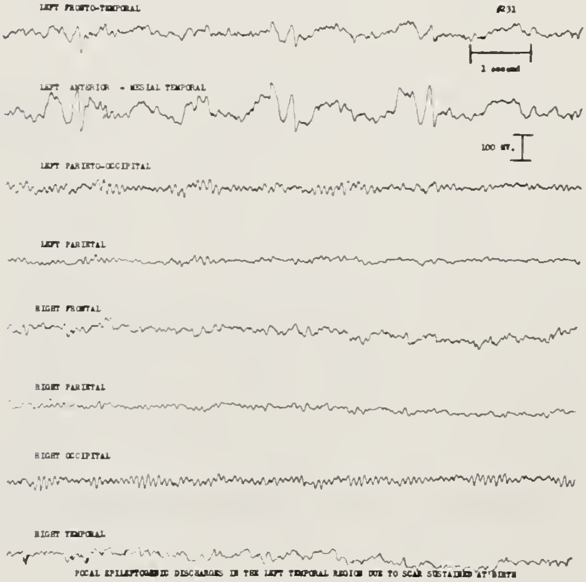

FIG. 2. Not all spikes from the anterior temporal region spread to give a psychomotor type of discharge. This is a sample of the electroencephalogram taken from a patient with focal convulsions secondary to a birth injury. Compare with figure 7 and note that this record indicates a discrete abnormality at the left temporal region associated with a slow wave background activity.

of patients with petit mal epilepsy (figure 1). On the contrary, the record showed that at the onset of each attack there were phase reversal focal spikes in the right temporal region, followed by a burst of fast spikes and generalized high voltage waves persisting for 8 to 10 seconds, much shorter than the duration of the clinical state of amnesia. Metrazol activation was used to precipitate a grand mal attack during electroencephalography and no focal origin was shown. During the past 3 to 4 years he had averaged from 5 to 50 psychomotor attacks a day. There was an average of 1 to 2 grand mal attacks a week, each of which followed multiple psychomotor seizures. Numerous anticonvulsant medications, administered and controlled by an outstanding private clinic in the Midwest, had no effect on the frequency or severity of the seizures.

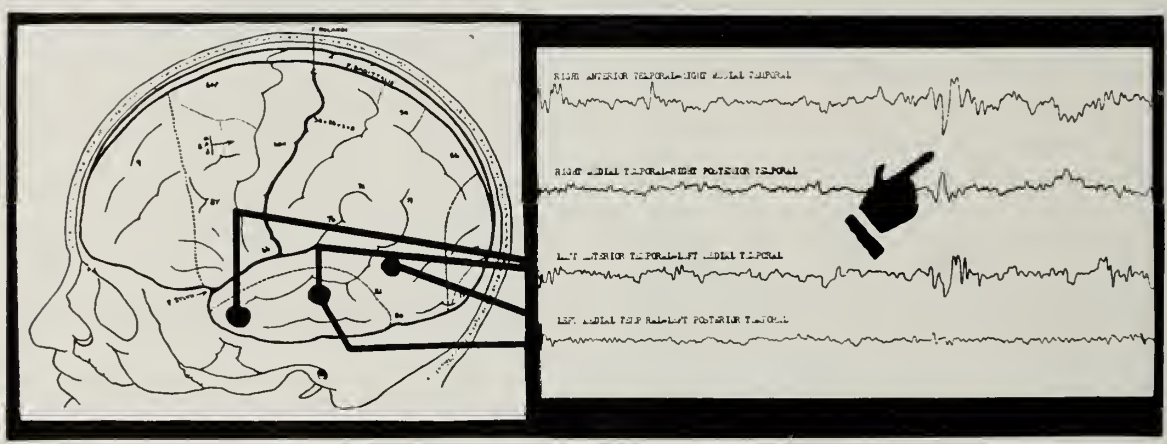
RIGHT ANTERIOR TEMPORAL-RIGHT MEDIAL TEMPORAL
RIGHT MEDIAL TEMPORAL-RIGHT POSTERIOR TEMPORAL
LEFT ANTERIOR TEMPORAL-LEFT MEDIAL TEMPORAL
LEFT MEDIAL TEMPORAL-LEFT POSTERIOR TEMPORAL

FIG. 3. Electroencephalogram made from the electrodes shown at left. The maximal discharge is nearer the right anterior temporal region, with phase reversal, sharp wave discharge as shown at tip of finger. Refer to report of case 1.

There was a history of a 9 months' pregnancy, 3 days of difficult labor, and a delivery with high forceps. The father noted that the head was "macerated" at birth, but no accurate information is available to confirm this impression. He developed normally, although he gained very little weight the first 6 months of life. At the age of 19 years a physician encouraged him to marry for relief of his seizures. After 1½ years of married life, which resulted in 1 child, without improvement in his convulsive state, he obtained a divorce. He never held a job, being supported by his family during and out of wedlock.

The neurologic examination was normal. The electroencephalograms demonstrated the psychomotor focus in the right temporal region (figure 3). At this time the method described by Gibbs for localizing the psychomotor focus was unknown to me and it was necessary to insert electrodes directly through bitemporal burr holes and over the surfaces of the temporal lobes. The pneumoencephalogram showed a slight localized dilatation of the frontal and temporal portions of the right lateral ventricle.

On August 12, 1948 the anterior tip of the right temporal lobe was ablated. Most of the superior temporal convolution was left intact, but the anterior 4 or 5 cm. of the middle and inferior convolutions was extirpated. The appearance of the temporal lobe as well as the gross and microscopic examinations were normal. He was out of bed on the first postoperative day and discharged from the hospital on the seventh postoperative day.

He returned to Washington at the end of the eighth postoperative month. He stated that he had not had an attack of any type. The electroencephalogram showed considerable improvement (figure 4). His medication at this time was only a third of the preoperative dosage. He had worked every day since the operation and had received numerous promotions until he was division manager of a big wholesale grocery company. Within the past 4 months he has steadily reduced his medication without my advice and is still free from all types of seizures. He is being married soon to one of the hospital personnel whom he met while he was a patient in Washington.

Case 2.—L. L., a 20-year-old single girl, had had infrequent grand mal attacks since the age of 16 years, averaging 1 attack per month. Two months was the longest period during which she was free from a seizure. She denied true petit mal seizures. Unconcerned as she was over the grand mal seizures, since she knew nothing of them, her principal complaint was numerous daily feelings of fear and attacks of unreality, usually associated with periods of automatism lasting from 3 to

80 minutes. On one occasion in a small town where she lived she purchased a dress during an attack and did not recall the incident. Following these attacks she was moody, depressed, and asocial, and wanted to be alone. At the onset of the attacks she often displayed a stereotyped behavior. She would call to her mother, and when her mother would come she would show considerable negativism of her mother's presence. A grand mal attack would occasionally follow, accompanied by biting of the tongue and incontinence, followed by deep sleep. Attacks consisting of "feelings of being afraid," déjà vu phenomenon, and "unreality" usually lasted approximately a minute. The electroencephalogram during these attacks showed a peculiar paroxysmal, localized, 6 to 7 per second, high voltage activity from the right temporal region.

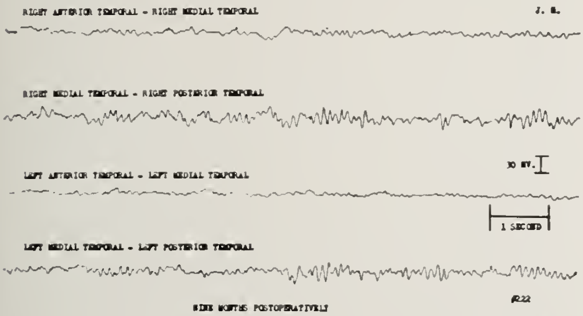

FIG. 4. Electroencephalogram made 9 months following ablation of anterior second and third temporal convolutions on nondominant side. Compare with figure 3, showing preoperative record of same patient. No epileptic waves could be demonstrated 9 months postoperatively during sleep, or hyperventilation, or while awake. There was also a marked improvement in the generalized paroxysmal dysrhythmia.

During the preceding year her memory, which had previously been excellent, became alarmingly poor to the family. Formerly a very "sweet, sociable child," she was now slow, had no interest in surroundings, and appeared to be "dreaming all the time." She was "nervous and irritable" and displayed numerous abnormal, poorly coördinated movements during most of the day. She had been seen on the neurologic service of one of the big Midwestern clinics whose clinical and electrographic impressions confirmed the diagnosis of grand mal and psychomotor epilepsy.

The neurologic examination was negative. The electroencephalogram was highly abnormal, showing numerous seizure discharges of the bilaterally synchronous type with the psychomotor focus near the tip of the right temporal lobe. This was localized with both bipolar and monopolar recordings. The hyperventilation response was normal. The pneumoencephalogram was normal, as were examinations of the blood, urine, blood sugar and spinal fluid. On December 3, 1948 a partial right temporal lobectomy was performed, sparing most of the superior temporal convolution. The focus of abnormality was noted in the anterior portion of the middle temporal convolution, as determined by electrocorticography during operation. The high voltage spike discharge in the anterior temporal region was transmitted to the lower posterior frontal region. After excision, the temporal focus and the transmitted discharge were absent.

The patient was allowed up on the third postoperative day and discharged on the tenth postoperative day. After returning home she became very sociable, her memory improved, and she promptly married. She has not had an attack of any kind, and is being maintained on the same preoperative medication.

Case 3.—S. D., a 29-year-old married woman, had grand mal and psychomotor epilepsy. She had had her first grand mal attack at 9 months of age, and continued to have these attacks at the rate of 1 to 3 per month. Later in life (age 13 to 16) she began to have "stubborn spells" which steadily increased in frequency and severity. Her mother had recognized for some years the harmfulness of these attacks as compared to the grand mal seizures, and it was her belief that these "stubborn spells" were "driving her crazy." The attacks usually began with localized rubbing of the head over the left frontal region, which she said was "itchy" when asked about it, in spite of the fact that she did not recall where the area was. This was followed by crying and later sobbing. She would then move about as if she were in a "bad dream," reaching for something to grasp. On one occasion she walked out of the house, into the yard, and up the middle of the street. She recovered 15 to 20 minutes later, being astonished to find that she was far away from home. There was no recollection of the attack. During electroencephalography she had an attack which began with patting of the right hand over the left frontal area. Immediately preceding the attack, there were high voltage bursts of sharp waves from the left temporal region which spread in a few seconds to involve all other head regions (figure 5). She then cried aloud, sat up in bed, looked around with a staring gaze, and mumbled unintelligently. I took her arm to restrain her and she pulled away. After she sat still for 2 to 3 minutes, looking about, she attempted to reach my tie but was forcefully restrained in a horizontal position. As she rolled from side to side, mumbling and smacking her lips, she began to cry aloud. This lasted for one-half minute and suddenly stopped. As she looked about the room, one could see that she was surprised to see many additional people in the room. There was urinary incontinence and she appeared ashamed. She had had an average of 1 to 8 similar attacks daily for the preceding 2 years. She had had excellent medical anticonvulsant therapy in high doses prescribed by several competent neurologists and internists. This was the first incidence of electrographic evidence suggesting that this form of abnormal behavior was the result of a continuing epileptic state.

Serial electroencephalograms, while awake and asleep, demonstrated the psychomotor focus in the left temporal region. Grand mal discharges of the bilaterally synchronous type were demonstrated at random. No evidence of petit mal was found. The background rhythm was of high voltage, 5 per second, continuous type, with paroxysmal dysrhythmia.

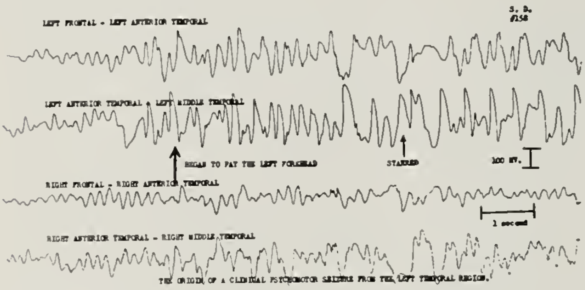
S. D.
#158
LEFT FRONTAL - LEFT ANTERIOR TEMPORAL
LEFT ANTERIOR TEMPORAL - LEFT MIDDLE TEMPORAL
BEGAN TO PAT THE LEFT FOREHEAD
STARED
100 MV.
RIGHT FRONTAL - RIGHT ANTERIOR TEMPORAL
1 second
RIGHT ANTERIOR TEMPORAL - RIGHT MIDDLE TEMPORAL
THE ORIGIN OF A CLINICAL PSYCHOMOTOR SEIZURE FROM THE LEFT TEMPORAL REGION.

FIG. 5. Bipolar electric recordings of beginning of a psychomotor seizure in case 3. Activity was largely confined to left anterior temporal region, later spreading to opposite temporal region.

A pneumoencephalogram was done which demonstrated a generalized dilatation of the ventricular system, with localized greater enlargement of the left frontal and temporal horns. An increased amount of air could be seen within the cortical sulci which was interpreted as being indicative of moderate cortical atrophy.

On January 13, 1949 the anterior 5 cm. of the left inferior and middle temporal convolutions was ablated. She was discharged on the seventh postoperative day. During the fifth postoperative week she developed hysteria and was treated by a neuropsychiatrist, while hospitalized for a week. The electroencephalogram no longer demonstrated the spike focus in the left temporal region, but a slow wave focus was evident.

There has been no recurrence of the psychomotor seizures. Her memory has improved. She is neat, attractive, has gained 15 pounds, and is hoping to adopt a baby soon. It is interesting that she has less need of her mother and more desire for her husband since operation. The grand mal attacks have been reduced in frequency and severity, although her medication has been reduced by 30 per cent. There was 1 grand mal attack in the second postoperative month, 1 in the third, and 6 in the fourth, since which time she has been free from seizures.

Case 4.—E. M., a 40-year-old white married woman, suffered from grand mal and psychomotor seizures. The onset of grand mal seizures began in infancy and ceased at 7 years, only to return again when she was 20 years of age. She had had an average of 1 every 3 months to 4 per day of grand mal seizures within the last 20 years. The psychomotor attacks became considerably more frequent and disturbing, especially in the preceding 4 years. She would have as many as 4 attacks per day, similar to that described as follows: She suddenly screamed aloud, not with a shrieking cry, and then clinched her fists. She took a book and fumbled with it in a disorderly fashion. She responded unintelligently to questioning, as she groped her way around the room. As she took a bowl from the mantle she began to stare and allowed the bowl to rest near its original position. When she turned to walk toward the wall, her sister took her arm and encountered considerable negativism as she tried to make her sit down. She took another book, sat down on the floor, and began to turn the pages, mumbling inaudibly to herself. Halfway through the book, she began to sing. For 10 minutes she sang church music. Afterwards she attempted to undress in the presence of her husband, sister, and brother-in-law, during which time she smacked her lips. When the attack had occupied 25 minutes, she returned to her pre-ictal behavior, having a complete amnesia for the entire attack.

She also had small attacks, usually lasting for 3 to 4 seconds, during which time she could see 1 of 3 standard scenes. These were not associated with any change in the state of consciousness nor amnesia and recurred 3 to 6 times per day.

There had been marked progressive changes in her personality during the preceding 10 years, which were elaborated by an internist for whom she worked many years ago. He commented that at one time she was the best secretary he ever had. Lately her memory had failed so that she could recall only isolated instances of a vacation taken 9 months previously.

She had been treated with exceptionally high doses of anticonvulsants (Dilantin, $1\frac{1}{2}$ grains 5 times daily, Mesantoin, $1\frac{1}{2}$ grains 6 times daily, phenobarbital, 1 grain t.i.d., Meberal, $1\frac{1}{2}$ grains 2 times daily, Pheneurone, Tridione, and a host of other drugs). This heavy medication schedule served to lessen the frequency of the grand mal attacks but did not alter the frequency or the severity of the psychomotor seizures.

During the previous 5 years she had been completely disabled and required close attention during the day, since on several occasions she had injured herself during grand mal attacks.

The neurologic examination was normal, with the exception of personality alteration, drowsiness, slowed activity and memory difficulty.

She was taken off medication for 2 days and an electroencephalogram was made. This showed a normal developmental pattern, and a general background rhythm of low voltage fast waves with paroxysmal dysrhythmia. Bilaterally synchronous high voltage spikes of the grand mal type appeared from all head regions. Hyperventilation failed to induce any specific abnormal wave forms. The electroencephalogram was repeated with identical results a week later, at which time a continuous 8-hour record was made. A 4-hour sleep record was then made under intravenous pentothal, which showed the psychomotor focus at the tip of the right temporal lobe.

X-ray examination of the skull showed no abnormality. Blood studies, including fasting sugar content, urinalysis, and cerebrospinal fluid analysis, were normal. Pneumoencephalogram showed generalized ventricular dilatation, slight localized enlargement of the right temporal horn, and moderate bilateral frontal cortical atrophy.

On May 10, 1949 a right anterior temporal lobectomy was performed. The entire tip of the lobe was removed, as shown in figure 6, sparing the Island of Reil. She was allowed up on the second postoperative day and was discharged 7 days after operation.

Since operation she has been taking Mesantoin t.i.d. and has had only 1 period of amnesia of 15 seconds' duration without displaying automatism. Her memory has improved remarkably, probably due in part to the withdrawal of medication. Her general appearance is considerably better, and she is more sociable. She is able to do all of her housework and wants to get a job.

Case 5.—F. S., a 35-year-old man, had had infrequent, grand mal seizures since the age of 16 years, averaging 1 every 8 months. Petit mal attacks were more frequent, averaging 20 per month. He and his entire large family noted that the grand mal and petit mal attacks did not interfere with his mentality, but that the most disturbing attacks were similar to the one described as follows: He began to stare suddenly at the dinner table and appeared as "though he was having a bad dream." After taking the table cloth and inspecting it in one hand, he brushed all the dishes off the table with the other hand. Then he got up and groped around the room, fumbling with his clothes. When his family tried to get him to lie down he resisted. After 7 to 10 minutes he returned to normal and had no recollection of the attack. Bitemporal headache, depressed feeling, and lack of interest persisted for several hours. These attacks occurred almost daily, sometimes more often. During the preceding 10 years he had been unable to work, even at small tasks around the family farm. His family noted that a marked deterioration in "intelligence, brightness and memory" had taken place in that time.

All of the numerous anticonvulsant preparations, in addition to patent medicines received through the mail, exaggerated the psychomotor attacks and made him feel "much worse."

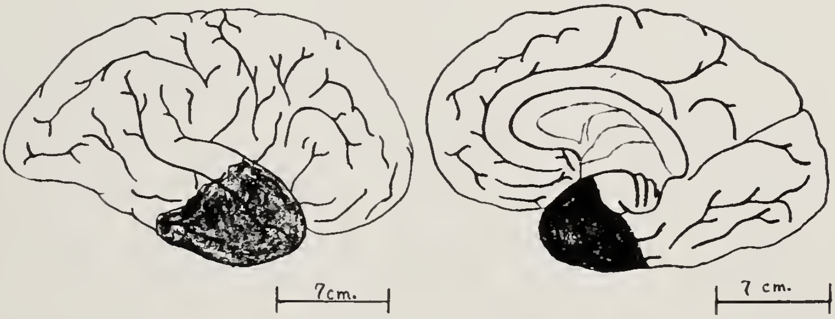

FIG. 6. The shaded area represents the maximal area removed in the nondominant temporal lobe. When removals were carried out in the dominant temporal lobe the ablation was confined within the anterior 5 cm. of the second and third convolutions. In the first 2 cases only the second and third convolutions were removed. No clinical deficit has been noted following these removals.

The neurologic examination revealed a quiet, self-centered, restless, irritable, emotionally void man appearing older than his stated age. A small area of pigmentation was noted lateral to the left optic disc at 3 o'clock. The right deep reflexes were difficult to elicit.

Two electroencephalograms, each 4 hours long, demonstrated a normal developmental activity, a high voltage generalized paroxysmal dysrhythmia, bilaterally synchronous high voltage spikes of the grand mal type, and the psychomotor focus at the tip of the right temporal lobe. This focus was exaggerated during sleep (figure 7) and in the bipolar record showed phase reversals at the basal electrode with reference to mesial and anterior temporal leads (figure 8).

X-ray examination of the skull, blood sugar, complete blood count, and urinalysis were normal. A pneumoencephalogram showed a slight enlargement of the right temporal horn. On June 1, 1949 the anterior 6 cm. of the right temporal lobe was removed.

Postoperatively the patient was placed on his preoperative medication of Mesantoin and Meberal each 1½ grains 4 times daily. There has been a 60 per cent reduction in the number of petit mal attacks and he has not had any grand mal or psychomotor seizures.

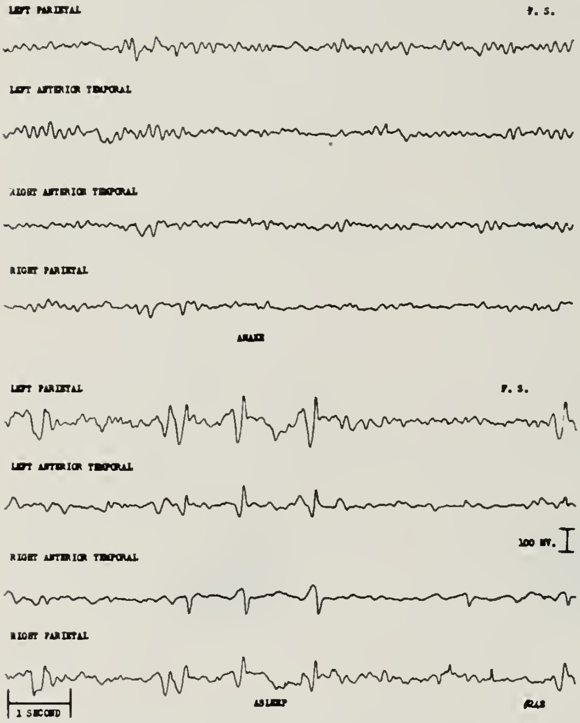

FIG. 7. The psychomotor focus is from the right anterior temporal region during sleep (case 5). This focus could also be demonstrated in the waking record in this case.

Discussion

The function of the temporal lobe in man has largely been limited to cortical stimulation adjacent to epileptogenic areas confined to that region.[15] Most of the responses in the conditioned temporal lobe have been obtained from the middle and posterior temporal regions, which leaves the anterior 5 or 6 cm. almost totally unexplored. Electric stimulation of the temporal regions in conscious patients almost always gives negative responses under normal conditions. The physiologic electric responses of the epileptic cortex are similar to the narcotized cortex and must be thought of as being a conditioned one, due to habitual localized epileptic discharges. Thus, one cannot assign to the temporal lobe perception or déjà vu phenomenon simply because this phenomenon has been obtained by stimulation of the human epileptic cortex at a point adjacent to an organic lesion. This point may represent only a single entry into a complex neural circuit.

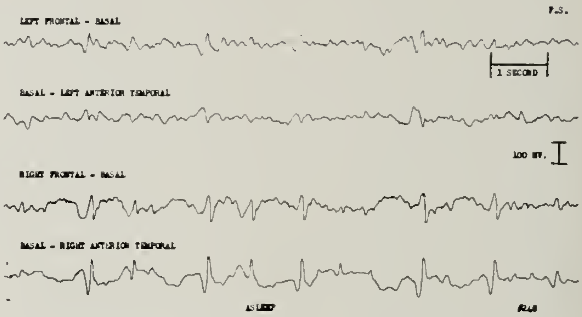

FIG. 8. The relationship of the psychomotor focus to the basal nasopharyngeal electrode is shown. Using the bipolar method, phase reversal spikes are shown at the nasopharyngeal lead with slightly greater amplitude in reference to the anterior temporal lead than to the homologous frontal lead (case 5). Compare with figure 7.

Removal of one temporal lobe in man results in certain losses. Ablation of the posterior half results in a homonymous hemianopsia without sparing macular or central vision. When the nondominant temporal lobe is removed, there develops a tendency for the eyes to move away from the visioned object to the side of the removal.[13] However, this sign has not been observed in the patients whose ablations did not extend posterior to the point opposite the lower termination of the Rolandic fissure. Bilateral removal of the temporal lobes in monkeys results in "psychic blindness," a failure of the animal to recognize the importance of what he sees. The dominant superior temporal convolution in man is important in the representation of speech, and thus it has been avoided in this series of cases. Usually only temporary malfunction in speech is noted,[13] provided the extirpation does not exceed 7 cm. of the anterior temporal region and the circulation is not disturbed.[16]

The important question previously raised by Penfield[17] is: Can abnormal behavior ever be a manifestation of a continuing epileptic state? This series of cases may partially answer this question. If a person shows abnormal behavior (without loss of consciousness—psychomotor seizure) and a focus of high voltage abnormality is obtained from one area of the brain, it would not be erroneous to associate this clinical state with that change in the electric physiology. This has been done in psychomotor epilepsy.[12] If this association is accepted and if ablation of the abnormal focal area of the brain results in freedom of abnormal behavior and elimination of the abnormal discharge, it can safely be deduced that the area of ablation exerts a powerful influence upon a complicated neural circuit which is instrumental in exciting the abnormal behavior (the continuing epileptic state). In the 5 cases which make up this report, it has been possible to adopt the foregoing analysis and conclusions.

The one observation that the positive spike was eliminated from the inferior posterior frontal lobe following removal of the psychomotor focus in the anterior temporal region suggests that the secondary excitation of that area may have been important in the development of stereotyped behavior. This observation was made in the only patient who showed stereotyped behavior (case 2). However, this point requires considerable more investigation before any conclusion can be reached.

An alarming concern in every epileptic's life is the chance of future mental deterioration. This may be the result of the high incidence of psychomotor seizures in institutionalized epileptics.[18] Certainly from his clinical history the epileptic fears the state of unreality, depersonalization, and associated psychic alterations, since he realizes that this type of attack is poisoning his mental processes. The outstanding example is S. D. of case 3 who felt "relieved, and inwardly relaxed" following grand mal seizures, but whose memory and organization of thought suffered so heavily that she could not do any work and remained in bed 15 hours a day with hypersomnolence.

The observation that personality alterations are common in patients with psychomotor seizures is borne out by an analysis of this small series of cases. Since it is a fact that these patients with abnormal behavior and altered personalities are improved following removal of the "psychomotor focus" in one temporal lobe, it would seem that the improvement is a result of eliminating a continuing paroxysmal state in which the anterior temporal lobe participates.

No claim can be made that the psychomotor discharges actually originate from the anterior temporal region, especially since most of the spike foci reverse at the basal electrode (figure 7), if one grants that the amplitude of the discharge is greater from the tip than from the middle of the temporal area. Yet, on the other hand, phase reversal spike foci can be found usually within the anterior 4 or 5 cm. of the second temporal convolution at operation, which would suggest that this point was the origin of the seizure discharges. Studies are now being carried out to determine the segmental analysis of a relationship which exists from the cortical focus to a point in the thalamus, especially the diffuse projection area. From the present studies, it can be stated that the removal of the temporal focus altered the specific transmission during operation of epileptic discharges to other parts of the brain, especially the corresponding frontal lobe. This may particularly explain the fact that 4 of the 5 patients had fewer grand mal and petit mal seizures following operation. In 1 patient (case 1) the generalized paroxysmal dysrhythmia had disappeared at the end of 8 months. In this case only the anterior 6 cm. of the second and third temporal convolutions was removed on the right side.

From the extensive observations of Gibbs et al,[12] that psychomotor discharges are especially common during sleep, it would seem that these discharges are a phenomenon of release, particularly since they are superficial and cortical, as determined by electrocorticography. This is comparable to the concept of cortical release by the hypothalamus during sleep, and would suggest that the hypothalamus may exert a formal control over these discharges. Perhaps this idea is in accord with a new concept in electric neurophysiology which asserts that the cortex has little to do with voluntary movements.[19] The cortex is simply an entry into a series of reverberating circuits which control movement, a concept supported in part by recent experimental work which shows that the isolated cortex is capable of establishing its own rhythm.[20] Such a continuing release would explain the continuing epileptic automatic thought-provoking processes during a psychomotor seizure.

The effect of temporal lobectomy on the frequency of grand mal and petit mal seizures is beneficial, probably due to (1) the improvement in the generalized paroxysmal dysrhythmia, (2) the elimination of numerous psychic equivalents which were sometimes followed by a grand mal seizure, and (3) the effect of interrupting the neural circuit in epilepsy. Whether or not the psychomotor focus is part of the primary circuit in petit mal and grand mal epilepsy is not clear from observations made in these cases.

The effect on petit mal is remarkable and may be due to the striking similarity between the more prolonged petit mal states with a few automatic movements and the true psychomotor seizure. In petit mal there is a loss of consciousness and the movements are hardly purposeful. The entire process does not usually disturb the continuity of thought. In the psychomotor attack, amnesia without loss of consciousness occurs. The two attacks can be differentiated electrographically, the petit mal seizures practically always being associated with 3 per second or 3 per second spike and dome abnormality (compare figure 1 with figures 5 or 7).

Whether or not the elimination of psychomotor seizures, psychic equivalents, and reduction in number of petit mal and grand mal attacks will prevent deterioration and the necessity for institutionalization can only be determined by long-term follow-up of a large series of cases. At any rate, it should be emphasized that following operation electric neurophysiology is improved. If the psychomotor abnormality and seizure be a lethal epitome of normal cerebral function, certainly these patients should receive eventual lasting benefit.

The possibilities that this approach offers to the control of abnormal behavior and thought processes are highly speculative. Already, through the use of bifrontal lobotomy, it has been shown how compulsive thought can be altered. This may be closely associated with the same process in the epileptic brain responsible for the aura of forced thinking. Such possibilities must await the knowledge of more detailed functional neurophysiology in man. The general principle that removal of certain portions of the brain in abnormally functioning states results in clinical improvements is well illustrated following removal of focal epileptogenic areas, bifrontal lobotomy, and unilateral temporal lobectomy for psychomotor seizures. The future stimulating application of this principle lies in electric coagulation of the interlaminar group of thalamic nuclei and the diffuse projection system for petit mal states, a project which is now under consideration.

SUMMARY AND CONCLUSION

Five patients with mixed types of epilepsy, in whom psychomotor seizures predominated, have been evaluated following unilateral anterior temporal lobectomy with ablation of the electrographic focus. These patients were severely affected, and their attacks were uncontrolled by large doses of anticonvulsant drugs. The results 19, 15, 14, 10, and 9 months following operation have been encouraging. Complete freedom from psychomotor seizures has been obtained in all cases. In addition to subsequent general improvement in the electroencephalogram, marked improvement in memory, abstract thinking, sleep, interest, and personality has been accomplished. None of the patients was able to work prior to operation. At present all of them are working. The patient of case 1 is a division manager of a large grocery company; the patient of case 2 is now married and has been performing all the duties of a housewife; the patient of case 3 is doing all of her housework; the patient of case 4 is a full-time housewife, who is doing work outside also as a secretary, and the patient of case 5 is now working on his family's farm.

Postoperatively the medication has been the same or less than the preoperative amount. When petit mal or grand mal was present in addition to the psychomotor seizures, a concomitant improvement in the frequency and severity of grand mal and petit mal attacks was noted.

Since it is possible to ablate epileptic discharges in psychomotor epilepsy with marked clinical benefit, it is logical to assume that these discharges are directly related to the clinical behavior. It would not seem unreasonable to postulate that abnormal behavior may be the result of a continuing epileptic state.

As the result of the high incidence of psychomotor seizures in institutionalized patients, it appears that this form of epilepsy is especially disabling mentally. This is true in this small series of cases. It is conceivable, as a result of future advance in this operative procedure, that the number of institutionalized patients could be reduced and others could be kept out of institutions. It is true that intellectual quotients are lower in patients with grand mal and psychomotor seizures than any other combination of seizures, and that patients are selected for institutions largely on the basis of their mentality.[21]

Since patients with psychomotor epilepsy are rarely benefited by treatment with any or all of the anti-epileptic substances,[12] this study was undertaken to provide some hope for this mentally destructive form of epilepsy. The operation was founded upon the experimental principle that focal electroencephalographic abnormalities are directly related to the area which is responsible for the focal convulsive states.

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CLINICAL IMPRESSIONS OF DECAMETHONIUM BROMIDE (C10) IN ANESTHESIA*†

A Preliminary Report

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THROUGH the observations of Barlow and Ing[1, 2] and Paton and Zaimis,[3] the curare-like action of polymethylene *bis*-quaternary ammonium salts was brought to light in 1948. Laboratory animals were tested with a number of aliphatic straight-chain carbon compounds containing 2 ammonium radicals. The decamethylene derivative with terminal trimethylammonium halide radicals was found to have the most curariform activity, being approximately 3 times as potent as a similar amount of *d*-tubocurarine.[1, 2] This compound has the short chemical name decamethonium and is referred to by the abbreviation "C10."

Subsequent work on human volunteers by Organe et al,[4] and later in clinical anesthesia by Organe[5] and Hewer et al,[6] has proved this compound to be a satisfactory substitute for previously used curare preparations.

Pharmacologic Action

C10 injected intravenously in animals and in man has proved to be an effective neuromuscular blocking agent. At first it was thought that skeletal muscle was affected more profoundly than the muscles of respiration. Subsequent reports have cast some doubt on this sparing of the respiratory apparatus.[5, 7] Decamethonium bromide has been reported to have much less activity in releasing histamine than its predecessor, *d*-tubocurarine.[3] Its neuromuscular blocking activities apparently are not affected by anticholinesterases, such as prostigmine, but some inhibiting power is found in its analogue, pentamethonium bromide.[4, 8] This latter agent, however, has not been found practical for use in anesthesia as an antidote, because it has a pronounced tendency to cause marked fall in blood pressure.[6]

Physical Properties

Decamethonium bromide is a white crystalline salt, which is very soluble in water and easily prepared synthetically. It forms a neutral solution which is stable in the presence of heat. It is miscible in solution with most of the chemical compounds used in anesthesia, including Pentothal and procaine, and is currently supplied in multiple dose ampules containing 1 mg. per c.c.

Clinical Use

Decamethonium bromide has been employed at the George Washington University Hospital in 100 cases under general anesthesia. The operative procedures included most of the common abdominal operations plus a number of cases in which the muscle relaxant was used primarily as an agent to facilitate endotracheal intubation.

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† Read before the Section on Anesthesiology of the Medical Society of the District of Columbia, November 1, 1949.

The distribution of cases is shown in table 1.

TABLE 1

Type of Operation	*Number of Cases*
Laparotomy (including gynecologic operations and abdominal explorations)	49
Appendectomy	14
Gall bladder and common duct operations	14
Thyroidectomy*	5
Thoracotomy*	4
Laminectomy*	4
Craniotomy*	3
Bowel resections	2
Gastrectomy	1
Miscellaneous*	4

* (C10 used primarily to facilitate endotracheal intubation in these cases.)

The anesthesias employed in this series included most of the anesthetic agents in general use in this area. They are listed in table 2.

TABLE 2

Type of Anesthesia	*Number of Cases*
Intravenous barbiturate and gas	64
Intravenous barbiturate, gas and ether	27
Avertin, intravenous barbiturate and gas	4
Gas and ether	2
Avertin, gas and ether	1
Cyclopropane and ether	1
Spinal, Pentothal and gas	1

Barbiturates used were Pentothal, Surital,* and, in 1 case, Nembutal. Gases were nitrous oxide or ethylene. Ether in most cases was used to supplement other agents, and only in a few cases was it used as the primary agent.

The patients in this series ranged in age from 14 to 76.

In general the anesthetists employed two methods in administering the drug intravenously: In the first method an initial dose of 2 mg. was injected, followed at intervals, as necessary, by repeated doses of 0.5 mg. to 1 mg.; in the second method repeated small doses ranging from 0.5 mg. to 1 mg. were given at the beginning of the operative procedure followed at intervals of 10 to 20 minutes by smaller doses. The amount used per case ranged from 0.6 to 8 mg., and the average was 2.6 mg. per case. In almost all of the cases lower first plane anesthesia was employed, while second plane anesthesia was used in 15 of the 100 cases. Oropharyngeal airways were employed routinely in those cases which did not require endotracheal intubation.

RESULTS

When an initial dose of 2 mg. was used, the onset of curare-like effects could be noted within 2 to 3 minutes. These would reach a peak in about 5 minutes and begin to subside shortly thereafter. Usually the abdominal relaxation lasted 15 to 30 minutes before a second dose was necessary. When repeated small doses were used initially, these effects were slower in onset and often relaxation was not so profound as in the first method. Frequently the initial dose would not have to be repeated before 30 to 40 minutes had passed if the surgeon would employ fixed retractors and if the abdominal contents were well packed off. The quality of relaxation was good in almost all cases, but 2 patients were reported as having inadequate relaxation. For closure of abdominal wounds a dose of 0.5 mg. to 1.5 mg. usually sufficed to restore relaxation. The effects of this terminal dose were gone in all cases by the time the patient was ready to return to the room. The large majority of the patients recovered vital reflexes before leaving the operating room and shortly after the conclusion of the anesthesia.

The respiratory effects of this agent were similar in all cases to that seen when *d*-tubocurarine is employed, with the exception that respiratory depression usually occurred more suddenly and lasted a shorter time. Return of normal breathing usually was quite as abrupt as the onset of the respiratory depression. Some degree of respiratory depression was noted in almost all cases when the relaxation became adequate for optimal operating conditions. After recovery from the initial depression, however, relaxation of abdominal muscles remained good in most cases for a varying length of time up to 30 minutes. During this period of relaxation following recovery little or no decrease of tidal volume was apparent. Complete apnea occurred in 20 of the patients, with the apnea lasting a little over 5 minutes in the majority. Only 1 was seen in which controlled respiration had to be employed for over 20 minutes. An additional 18 patients showed severe respiratory depression just short of apnea requiring active support during the period before recovery took place. Again most of these marked depressions lasted a little over 5 minutes, and 1 was recorded as lasting 10 minutes or more. It was noticed that apneas occurred more frequently when ether was employed in the anesthesia. Thirty per cent of those patients receiving a barbiturate-gas-ether anesthetic developed apnea as against 9 per cent with apnea in the barbiturate-gas group.

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* Thiobarbiturate, the product of Parke, Davis & Co., issued to the George Washington University Hospital for clinical investigation.

No bronchial or laryngeal spasms were recorded in the series of cases. On the contrary, 1 case of laryngospasm which occurred under pentothal and gas anesthesia in a 64-year-old patient was partially broken up within a few minutes with the use of 0.8 mg. of C10 intravenously. This laryngospasm had developed following induction of anesthesia with Pentothal and maintenance with ethylene. It had been partially overcome by the use of positive pressure, but a severe laryngeal stridor had persisted. Shortly after the injection of C10 the laryngeal stridor eased perceptibly, and a minimal amount of positive pressure was sufficient to keep the airway open.

Only 2 patients in the series demonstrated cardiovascular changes which may possibly be attributed to the use of C10. In both of these cases marked fall of blood pressure occurred following injection of C10, but events related to the operative procedures in all probability more directly caused these falls.

The agent under study was used in 20 patients primarily to facilitate endotracheal intubation. In most of these cases induction of anesthesia was accomplished by intravenous barbiturate followed in a short period of time by an injection of 1.5 to 3 mg. of C10. Intubation usually was readily accomplished within 5 to 8 minutes. In all of these cases depressed respiration was the rule, and 5 had an actual apnea. One was reported to have irregular respiration for a period of 10 to 15 minutes following the intubation. Intubation was difficult in 2 cases and could not be accomplished in 1. This latter case was that of a patient who had had a previous thyroidectomy with considerable distortion of the anatomy of the neck.

Postoperative Complications

Postoperative complications were found to be minimal. Three cases of shock occurred following return of the patients to their rooms. In all of them blood replacement had been inadequate during the operation, and there was little to indicate that C10 was the cause of the shock.

One postoperative pulmonary complication occurred in a 74-year-old white woman following cholecystectomy. This patient developed fever, elevated pulse, cough, and basal rales on the second day. The clinical diagnosis of hypostatic pneumonia was made. The patient was treated with penicillin, became afebrile on the eighth day, and was discharged as well on the fifteenth postoperative day.

The incidence of postoperative nausea and vomiting was about the same as in similar cases in which C10 was not employed.

Discussion

Relaxation as produced by decamethonium bromide was rated as good in nearly all of the cases reviewed. Some respiratory depression was noted in all cases and was reflected as a decrease in tidal volume for a period of 5 or 10 minutes following an adequate relaxing dose of C10. This depression of respiration should not constitute a hazard in a well planned anesthesia when adequate precaution for maintenance of a good airway is present and when the anesthetist is alert to supplement respiration as necessary with intermittent positive pressure. The use of artificial airways should be made routine when endotracheal intubation is not to be done.

An advantage is seen in C10 in its more or less transient effect on respiration as compared to *d*-tubocurarine. In spite of the short duration of respiratory depression when C10 is given, relaxation is apparently prolonged for a period of 10 to 30 minutes after the respiratory exchange has returned to normal. Operating conditions remain good during this period of respiratory recovery and following it, particularly if fixed traction is employed by the surgeon and packing of abdominal contents has been carefully undertaken.

Repeated doses of C10, even to the amount of the initial dose, may be given with impunity at relatively short intervals following the initial dose. There appears to be little or no cumulative action of the drug. It was noted that if administration of the initial dose of 2 mg. was prolonged over a period of several minutes, very adequate relaxation often could be obtained without getting profound respiratory depressions. Rapid injection of this dose frequently produced a prompt apnea. If the administration of the dose was carried out over too long a period of time, relaxation was frequently inadequate. Although apnea was produced fairly frequently by the initial dose, subsequent doses at intervals during the operation would cause less respiratory depression while maintaining adequate relaxation. Very rarely was apnea produced by a dose used just before closure.

In general, the anesthesias during this series were very smooth and uncomplicated. Once respiratory recovery had set in following an initial injection of C10, the respiratory rate and volume remained deep and smooth.

The advantage of this agent over *d*-tubocurarine, in our opinion, is its reported innocence as a cause of bronchospasm.[7, 9] Whether this is due to some vagal inhibition inherent in the drug (as suggested by Hewer et al[6]) or to its failure to cause release of histamine is not determined. In any event, C10 should be safer than curare to use with Pentothal or cyclopropane. Its use in operations upon the asthmatic patient, where emphysema is not a complicating factor, appears warranted. Likewise, its substitution for curare in Pentothal-curare anesthesia fos bronchoscopy may in part remove some of the objections that exist against this particular anesthetic method.

It must be emphasized that these opinions are based on clinical impressions in only 100 cases and that further trial and investigation are necessary to evaluate properly the advantages and disadvantages of this new agent.

SUMMARY

Decamethonium bromide (C10) has been investigated as a muscle relaxant in anesthesia in 100 cases. It is potent and apparently safe to use with all general anesthetic agents. Particularly to recommend it are its short duration of action and its reported freedom from activity in releasing histamine. It is a potent respiratory paralytic agent, and it should be employed only when an adequate airway is maintained and where resuscitative measures are immediately available. Some respiratory depression should be expected in all cases.

N. B. The decamethonium bromide used in this study was kindly supplied by Burroughs Wellcome & Co. as their product "Syncurine," which contains 2 mg. of C10 per c. c.

Since the paper has been submitted for publication the concentration has been reduced from 2 mg. per c. c. to 1 mg. per c. c.

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AN EVALUATION OF THE MODERN METHODS OF TREATMENT OF HYPERTENSION

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PRIOR to entering into any evaluation of the modern methods of treatment of hypertension, a few preliminary factors must be considered. Primarily there is no single, satisfactory treatment for this disease. As one investigator has stated, we are today in the same position with the treatment of hypertension as we were with diabetes prior to the discovery of insulin. The outlook is becoming more encouraging as investigation proceeds, but as yet we are nowhere near the answer. When we stop to realize that there are fifteen million hypertensives in the United States today and that statisticians estimate that half of the population over 40 years of age will die of this disease or one of its complications, the problem of finding a treatment presents itself acutely.[1]

Any patient whose blood pressure has been consistently elevated to a level of 150/100 or greater is considered to have hypertension. Patients in a general way fall into 4 groups, with prognosis and response to treatment varying according to their group:

Group 1. The early labile hypertensive whose blood pressure varies over a wide range with no evidence of vascular degeneration. Response to therapy is uniformly good.

Group 2. The early hypertensive with a relatively fixed elevation of blood pressure, whose only lability is displayed in an upward direction. There may or may not be evidence of early vascular degeneration, manifested particularly in the eyegrounds, but as yet no demonstrable cardiac or renal damage. Response to therapy is fair, but neither uniform nor satisfactory.

Group 3. The late hypertensive with advanced arteriosclerosis but without marked renal damage as demonstrable by clinical means. The prognosis is fair provided the diastolic pressure is below 120.

Group 4. The malignant hypertensive who has as a rule advanced retinal changes and demonstrable cardiac and renal disease. Response to therapy is uniformly poor, and death usually ensues within 12 months after this phase is entered.

In brief, the prognosis, regardless of the method of treatment, is good with lability of blood pressure; bad in the face of a fixed diastolic pressure over 120, in the presence of neuroretinitis or papilledema, and when renal function is impaired. Cardiac arrhythmias and cardiomegaly are also bad prognostic signs.

In the selection of a hypotensive agent, it is well to keep in mind the desirability of certain characteristics. The agent should lower blood pressure in a good proportion of cases, with at the same time little or no detrimental effect on the patient. Accompanying the drop in blood pressure there should be clinical evidence of arrest or reversal of the disease, otherwise the hypotension itself may mean nothing, and the duration of action of the agent should be at least 8 hours so that it will not interfere with the patient's sleep. Finally it should be easily administered and be effective by mouth or subcutaneous injection.

Medical Treatment

Bed rest.—Bed rest in itself is a form of treatment. The majority of hypertensives respond in some degree to rest in bed. This improvement is manifested principally in the systolic pressure. Bed rest lessens activity and reduces the load on the circulation. However, it is a poor approach to therapy. It is impractical to be unable to work, and the psychologic damage is frequently serious. It is important, therefore, to attempt all means of conservative therapy before resorting to this measure. It is also important not to attempt therapeutic evaluation of other drugs given to patients in bed until they have been at rest long enough to reach a baseline of blood pressure at rest. Bed rest will not appreciably shorten the course of the disease.

Nonspecific medications.—Phenobarbital, Thesodate, Theominal, and other proprietary drug combinations are not hypotensive agents in the doses customarily prescribed. The vasopressor responses of the blood vessels may be lessened in the early labile or neurogenic stage, but these patients would do equally as well with no therapy or a placebo. They would be more greatly benefited if the physician were to spend more time in discussion and give reassurance to those who seek advice. As has so frequently been said in regard to the treatment of hypertension, whatever is given the patient should be given with the greatest of confidence.

Specific medications.—(a) Potassium thiocyanate* is still a controversial drug in the treatment of hypertension. The statistical success varies in the literature from 5 to 20 per cent of patients receiving a hypotensive effect. Aside from this, however, many authors believe it to be almost a specific for severe hypertensive headache because of the repeated relief of this symptom regardless of the effect on the blood pressure. Before beginning treatment with this agent, the renal status must be thoroughly investigated by the use of routine procedures, such as a routine urinalysis, the phenolsulfonphthalein test, the concentration test, and the blood nonprotein nitrogen determination. Poor renal function results in accumulation of the drug to a high serum level while a relatively low dosage is being used.

The thiocyanates may be highly toxic if the serum level is above 17 mg. per 100 c.c. Therefore, the blood concentration of the drug must be tested at intervals. The toxic reactions to be avoided are both mild and severe. The mild ones are nausea, diarrhea and vomiting. The severe reactions are psychosis and exfoliative dermatitis. In fatal cases resulting from toxicity the course is progressively downhill to collapse and death despite discontinuation of the use of the drug, because it may remain in the serum as long as 3 weeks after withdrawal. Another more infrequent toxic reaction to be watched for is thyroid enlargement, myxedema and even goiter produced by thiocyanate blockade of the formation of thyroxin. This can be overcome by the administration of potassium iodide in doses of 10 drops t.i.d.

Treatment with potassium thiocyanate is commenced with 1 grain enteric-coated tablets 3 times daily after meals. Blood levels must be estimated at least once weekly. The dosage is increased 1 to 2 grains weekly until the serum level reaches 8 to 12 mg. per 100 c.c. of blood and then maintained at this level for 3 weeks, with weekly determinations of blood pressure and serum concentration. If no hypotensive response is attained at the end of this time, the drug is discontinued. If there is a response the drug is progressively reduced to the minimal dosage which is effective, since frequently a blood level of 4 to 8 mg. is sufficient to maintain a hypotensive effect.

(b) Sympatholytic agents are drugs which block sympathetically innervated vasoconstriction. Their investigation was stimulated by the success of sympathectomy, but thus far few have been found practicable for long-term treatment. Those most thoroughly investigated, to date, will be mentioned. All of them may produce hypotension, particularly when the patient is in the erect position, but the duration and degree of fall are variable and seemingly have no relation to the size of the dosage. Various other sympatholytic responses result from the use of these agents, such as nasal stuffiness and inhibition of reflex vasoconstriction of the vessels of the extremities.

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* Thiocyanate therapy was advocated before 1920 by a member of the Medical Society of the District of Columbia, Dr. John B. Nichols.

The first of these agents and the one with which we are all most familiar is tetraethylammonium bromide or chloride, commonly known as Etamon. It is effective only by parenteral administration in doses of 0.2 to 0.3 Gm. intravenously. The drug has been used in Raynaud's disease and thromboangiitis obliterans, but its duration of action and hypotensive response is too transient to be of practical usage in long-term clinical treatment of hypertension. It may be used in an emergency in cases of hypertensive encephalopathy. In addition to sympathetic blockade there is also concomitant parasympathetic blockade with resultant tachycardia when the patient is erect. Visual accommodation is affected.

The second group of sympatholytic agents are the dihydrogenated alkaloids of the ergotoxine group. They produce a central blockade of sympathetic reflexes. The most promising of these is dihydroergocornine or DHO 180. It is initially effective both parenterally and orally, the intravenous dose being 0.25 mg. and the oral dose 2 to 8 mg., administered before breakfast. In those patients who respond, and unfortunately the percentage has not yet been great, the hypotensive effect may last from 8 hours to several days. There are no significant toxic side-effects following oral administration with the exception of nasal stuffiness and occasional nausea or vomiting. In many patients who have a hypotensive response the drug apparently becomes ineffective after 2 to 3 weeks. Postural collapse in the erect position will occur following the hypotensive response unless an abdominal binder and elastic stockings are used. A reduction of dosage may result in the lessening of this effect.

A third sympatholytic drug is Dibenamine, which blocks sympathetic impulses peripherally at the effector cells. It is a derivative of nitrogen mustard and is too caustic to be administered in any way except intravenously in dilute solution by slow drip. Its dose is 5 mg. per Kg. of body weight in 500 c.c. of isotonic saline. Despite this precaution chemical thromboses at the site of injection are a common complication. In animals an adrenolytic effect is seen, but this has not yet been observed in man. Hypotension may last for several days, but the drug is too unwieldy and has been practically discarded for the present. The hypotensive effect may last hours to days.

Pentaquine is a synthetic derivative of plasmochin and was developed as an antimalarial during World War II. It blocks sympathetic reflexes in the central nervous system rather than at the ganglia or peripherally. After several days of administration a striking fall in blood pressure results even in malignant phases of hypertension. Unfortunately the required dose is too high and toxic effects are frequent, with abdominal pains, weakness, anorexia and methemoglobinemia being the most prominent. Postural hypotension lasts for several weeks following discontinuation of the drug, and the progress of the disease is not in any way altered. This drug is not recommended.

The most promising of the new hypotensive agents is *Veratrum viride* and its purified alkaloid derivatives. The Veratrum was used in crude form as far back as 1900, but because of erroneous conclusions regarding its effects it fell into discard in the majority of clinics. It was thought that cardiac output and renal blood flow were too greatly diminished to make the drug safe. Modern investigation has proved these conclusions to be incorrect. The staff of the Cincinnati General Hospital has used the drug as a part of its routine treatment of eclampsia of pregnancy for the past 20 years and has one of the best mortality records for that condition.

Another significant factor is the production of the purified alkaloids. These reduce the side-reactions considerably and make the drug much easier to administer. Effectively standardized preparations of the purified alkaloids are available only for investigation at this writing.

The drug may be administered either orally or intravenously. Parenteral administration is reserved for emergency needs, such as eclampsia and severe encephalopathy.

The dosage which was originally given in "craw units" is now expressed in milligrams. The amount of drug necessary for hypotensive effect varies with each patient, and this is one of the drawbacks in its therapeutic value. However, if 0.5 to 1 mg. is given 4 times a day following meals and at midnight as a starting point, there is little danger of a side-reaction. The duration of action of each dose is approximately 6 hours and, if possible, meals should be kept that far apart to avoid any cumulative effect. The dosage may then be gradually increased every 48 hours until a hypotensive effect of satisfactory level occurs or side-reactions intervene. It is preferable initially to increase the amount of medication at the morning and midnight administration, since the drug is best tolerated at those times. True hypotensive effect of this or any other drug is best observed by noting the changes in the diastolic pressure.

Early signs of toxicity are epigastric burning, "fullness" of the abdomen, tightness in the throat, nausea and vomiting, bradycardia, and excessive salivation. The drug should be used with caution in cases of advanced renal disease because of the danger of a cumulative action. Any toxic effects can be effectively counteracted by the use of atropine sulfate intramuscularly and ephedrine sulfate by the same route, if the blood pressure drop is too severe. Hypotensive action has been obtained in more than 75 per cent of the patients investigated.

The mechanism of the action is not entirely known. The Veratrum derivatives stimulate the afferent vagal nerve endings in the thorax and particularly the myocardium of the left ventricle, and impulses travel to the brain and initiate a fall in blood pressure and pulse rate. The slowing of the cardiac rate is apparently the result of efferent vagal stimulation, because it can be abolished by atropine, which does not abolish the hypotensive effect.

The two most important observations in the use of Veratrum are the variability of effective dosage and the narrow margin between the therapeutic and toxic dosage.

Diet.—The use of diet for hypertension is one of the oldest methods of treatment. Allen many years ago advocated the salt-poor or salt-free régime, and Kempner with his rice diet has simply adopted his principles.[2] Obesity itself has been thought to play a part, because hypertension is definitely more common in the obese, but simple loss of weight with no other treatment has never been conclusively shown to lower blood pressure.

Kempner's rice diet will lower blood pressure in a fair percentage of patients, but its unpalatability and monotony, accompanied frequently by profound weight loss and weakness, make it difficult to justify as the answer in hypertension. In addition, in the presence of extensive renal damage, the Kempner régime by the very rigidity of its salt restriction can result in uremia because of the further diminishing of glomerular filtration rate attendant with such restriction.[3] Any diet which will restrict sodium intake to 0.5 Gm. daily will have the same effect. Mead Johnson has recently made such diets available on request to the physician. Their research department carried out a momentous program of sodium analysis in various foods, and the diet they have evolved is far more palatable than the rice diet.

Statistics on the effectiveness of salt restriction for hypertension vary anywhere from none to 30 per cent of effectiveness, except for Kempner, who claims greater success.[4] The validity of its claim to success is therefore questionable, but in severe hypertension it is worthy of trial, if for no other reason than that it will slow the onset of complicating heart failure and in the presence of heart failure is obviously necessary.

One word more on weight reduction. It is my personal experience in a limited number of cases that weight loss of itself will not have a hypotensive effect. Ayman[5] studied 40 patients in whom he obtained weight reduction of 20 to 40 pounds with absolutely no hypotensive effect.

SURGICAL TREATMENT

Of the surgical approaches to the relief of hypertension, only the sympathectomy has found a definite place. The unilateral nephrectomy (except in cases of unilateral renal disease) and the attempts to revascularize the kidneys by decapsulation, scarification, and pedicled omental or muscular grafts are physiologically unsound, and experience to date does not justify their usage.[6] Bilateral adrenalectomy has been attempted. There are specific surgical procedures for coarctation of the aorta and removal of pheochromocytomata but they have no place in our discussion, since it is confined to essential hypertension.

The results of the sympathectomy in which the greater splanchnic, the lower thoracic, and the lumbar chains are removed bilaterally are still undergoing evaluation. The selection of patients for this procedure is even yet in the experimental stage. To illustrate this Goldring and Chassis[7] have recently reviewed some 6,000 cases done by various groups throughout the country in the last 8 years and have been unable to come to a definite conclusion. Whether the early case or the late case is to be chosen is still to be decided. The internist and general practitioners have in general been reluctant to advise the procedure in any but late cases, and it appears we may well be in error. The best procedure for selection is probably to concede that hypertension is still a medical disease. However, when one has a patient who has been followed medically and in whom the disease shows evidence of progression by ECG changes, early eyeground changes and others, then is the time to consider whether medical treatment should be continued. I do not believe there is much argument against the idea that these patients will be benefited and their life lengthened.

Even in late phases in which there are grade 3 or 4 eyeground changes, Bronson Ray of the New York Hospital gives statistical strength to the prolonging of life by sympathectomy. In a recent analysis of better than 250 patients in this advanced group who were sympathectomized, only 14 per cent died within a year. In a control group which were treated medically 69 per cent died within a year.[8, 9]

Despite all of this, the argument still goes on. On careful analysis Ayman[5] states that 10 per cent of patients on operation have a drop to a normal blood pressure. Wilkins and Smithwick[10] state that the great majority of patients definitely demonstrate less pressor response and arterial overshoot and are therefore benefited.

In the successful cases there is no question of the remarkable and rapid fashion in which the electrocardiogram will reverse itself from the pattern of left ventricular strain. It occurs in many within 3 to 4 weeks. There is also no question that in the successful cases there is no medical result that can be conpared to it.

The reasons, therefore, for the hesitancy in advising sympathectomy should be considered. Primarily, the majority of patients have not been properly evaluated until recently from the standpoint of preoperative blood pressure level; thus their postoperative evaluation is difficult. The criteria for selection of cases are still in debate, and further, as one investigator has stated, the operation is a thoroughly unphysiologic and formidable procedure, which, however, has some highly favorable, unpredictable results.[11] It is this unpredictability which makes this a difficult decision for the internist, and, although his responsibility for selection is the greatest, it must be a three-way choice, with the surgeon and, most important, the patient sharing in the decision.

Following the operation there is usually marked postural hypotension with tachycardia for 2 to 3 months. The use of an abdominal binder and elastic stockings will offset this effect

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ADMINISTRATION OF AVAILABLE ANTIBIOTICS: PENICILLIN, STREPTOMYCIN, AUREOMYCIN AND CHLOROMYCETIN (CHLORAMPHENICOL)*

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PENICILLIN

SUFFICIENT information on the pharmacology of penicillin in aqueous solution has been accumulated so that it is possible to arrange the dose of penicillin according to the time interval desired and the sensitivity of the organism.[1, 2] A total of 300,000 to 600,000 units per day is adequate for the treatment of most infections. Recommended dosage schedules are shown in table 1. It is possible to give individual doses containing up to several million units (in concentrations up to 500,000 units per c.c.), using either isotonic salt solution or distilled water as a diluent. Pain and discomfort can be minimized by the use of the former as a diluent with a minimum volume of solution to which 0.5 to 1 c.c. of a 1 to 2 per cent procaine solution has been added.

TABLE 1

Dosage Schedule of Penicillin Administered by Intermittent Intramuscular Injection Correlated on the Basis of Desired Blood Concentrations

INTERVAL HOURS	BLOOD CONCENTRATIONS DESIRED (UNITS PER C.C.)								
	0.03 to 0.04	0.06 to 0.08	0.16	0.31	0.62	1.25	2.5	5	10
	Doses of Penicillin (Units)								
2	20,000	30,000	50,000	100,000	200,000	300,000	500,000	1,000,000	2,000,000
3	30,000	50,000	100,000	200,000	300,000	500,000	1,000,000	2,000,000	
4	50,000	100,000	200,000	300,000	500,000	1,000,000	2,000,000		
6	100,000	200,000	300,000	500,000	1,000,000	2,000,000			
8	200,000	300,000	500,000	1,000,000	2,000,000				
10	300,000	500,000	1,000,000	2,000,000					
12	500,000	1,000,000	2,000,000						

The discovery of procaine penicillin has resulted in the development of several satisfactory preparations for repository injection. This relatively insoluble salt of penicillin injected intramuscularly in doses of 300,000 units suspended in 1 c.c. of oil will result in assayable concentrations in the blood for 24 hours in almost all patients. The problem with this preparation is the instability of the suspension and the difficulty in resuspending the penicillin in the oil uniformly after standing. The addition of aluminum monostearate to the mixture not only stabilizes the suspension but further delays the absorption of penicillin resulting in adequate blood concentrations for at least several days (figure 1).[3] The addition of sodium carboxymethylcellulose and/or pectin to procaine penicillin in the dried state makes it possible to suspend the penicillin salt in aqueous solution without affecting its absorption.[4, 5] Recently this preparation has been modified so that it is possible to dispense the procaine penicillin in a permanent aqueous suspension. Criticism of these preparations in that they failed to produce high peak blood concentrations shortly after injection has been overcome by the inclusion of 100,000 units of potassium penicillin for each 300,000 units of procaine penicillin.

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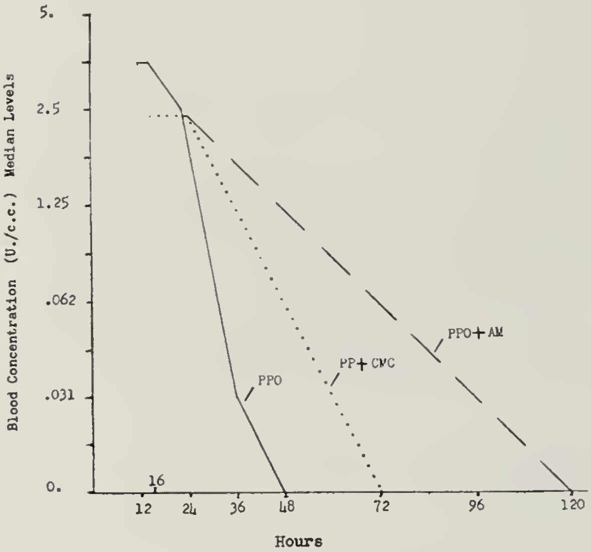
* Delivered at the Twentieth Annual Scientific Assembly of the Medical Society of the District of Columbia, October 17, 1949.



PPO = Procaine penicillin in oil
PP + CMC = Procaine penicillin + carboxymethyl cellulose
PPO + AM = Procaine penicillin in oil + aluminum monostearate

FIG. 1. Curves of the concentration of penicillin in the blood following intramuscular injection of 300,000 units of procaine penicillin suspended in various vehicles.

On occasion it is necessary to administer penicillin in exceedingly large doses. Continuous intramuscular or intravenous infusion gives higher and more constant blood concentrations than equivalent doses by other methods.[6] In general, a constant blood concentration of 0.1 unit per c.c. of serum can be expected for each 100,000 units given by continuous infusion over a 24-hour period. As much as 60 million units or more have been given in 1 day by this method. The daily dose can be dissolved in a flask containing 200 to 2,000 c.c. of isotonic salt solution which is connected to a Murphy drip apparatus and the rate of flow adjusted accordingly. When it is desirable to limit the quantity of sodium administered, distilled water or a 5 per cent solution of glucose in water may be used as the diluent. If the intramuscular method is to be used, a 2-inch, 18- or 20-gauge needle is inserted deep into the lateral aspect of the thigh or into the gluteal muscle. Twenty-five c.c. of a 1 to 2 per cent procaine may be added to each flask of solution to alleviate pain. One intramuscular site may be used for several days. When permissible, patients may ambulate, carrying the drip apparatus with them. For continuous intravenous infusion the solution is administered through a 20-gauge needle inserted into a vein, preferably one below the elbow in order to give the patient more freedom of movement. Veins in the leg may be used, if desired. One vein may be used for several days unless evidences of irritation appear, at which time the site of injection should be changed. This precaution, plus the addition of 1 unit of heparin for each c.c. of solution, will almost entirely prevent thrombophlebitis. When continuous intramuscular and intravenous infusions are not possible, administration into the bone marrow, particularly the sternum and tibiae, can be used.

Since the concentrations of penicillin in the serum following oral administration are low and variable, this method of administration should be employed only for those infections in which the causative organisms are highly susceptible, tissue destruction is not extensive, and diffusion into the involved tissues is good.[7, 8] Doses of 100,000 units every 3 or 4 hours (3 to 5 times the parenteral dose) are usually adequate. Buffered preparations are somewhat superior to plain penicillin, but there is no particular buffer of choice. Penicillin used orally is best given at least one-half hour before and one and one-half hours or more after meals. Tablets containing 250,000 and 500,000 units have recently become available and probably can be given at longer intervals.

Adequate cerebrospinal fluid concentrations of penicillin can be obtained by the parenteral administration of 10 to 25 million units per day[9, 10] When it is necessary to inject penicillin into the cerebrospinal fluid, the lumbar subarachnoid space is generally used, although the lateral ventricles or cisterna magna may be employed. Daily doses of 10,000 to 20,000 units are invariably adequate. Since intrathecal injections that are too concentrated or given too rapidly may produce damage to the central nervous system, the penicillin should be dissolved in 5 to 10 c.c. of solution (1,000 to 2,000 units per c.c.) and instilled slowly or by gravity after a slightly greater volume of cerebrospinal fluid has been withdrawn.

For the treatment of infections of the pleura or pericardium doses of 50,000 to 200,000 units in a dilution of 1,000 to 10,000 units per c.c. of isotonic salt solution daily are recommended. First, as much exudate as possible should be removed and the cavity irrigated with isotonic salt solution. It was long believed that underlying pulmonary disease should be treated in addition by the parenteral route, but intrapleural injections of 100,000 to 200,000 units of penicillin probably result in absorption of therapeutically adequate blood concentrations.

Infections of the joint are best treated by intra-articular injection of penicillin, with doses of 50,000 to 200,000 units in dilutions of 1,000 to 20,000 units per c.c. given daily or every other day, respectively.[11] As much synovial fluid as can be obtained is first removed and the cavity irrigated with isotonic salt solution. Parenteral therapy is adequate for gonococcal arthritis when there is no obvious destruction of the structures.[12, 13] The presence of periarticular involvement or other extra-articular complications is an indication for parenteral therapy in addition.

Inhalation of penicillin is best accomplished with doses of 50,000 to 100,000 units dissolved in 1 to 3 c.c. of isotonic salt solution or other appropriate diluents administered over a period of 10 to 30 minutes 4 to 6 times a day. Administration by inhalation is completely satisfactory only when a special nebulization apparatus designed for this purpose is employed. The local reactions in the mouth and throat occasionally seen following administration by this method can be minimized by drinking a small amount of water after each treatment.

A variety of preparations is available for local penicillin therapy. Solutions of penicillin in concentrations of 250 to 1,000 units per c.c. of isotonic salt solution or water can be applied to superficial wounds by means of gauze soaks, as a spray, or through small rubber tubes in deeper wounds. Irrigation of wounds should be employed only when the solution stays in contact with the infected surface long enough to be effective. Powders containing penicillin alone or in combination with sulfonamides are available with a potency of 5,000 units of penicillin per gram of powder. Penicillin ointments with a potency of 1,000 units and 10,000 units per gram are also available. The size and nature of the wound determine the amount of frequency of application. Since it has been determined that the exudate from wounds contains significant concentrations of penicillin when adequate doses are given parenterally, the only advantage of local therapy is that injections are avoided. Also, allergic reactions are more frequent following local therapy, and this method of administration may be inadequate when deeper tissues are involved.

Although infections of the mouth are best treated by parenteral or oral methods, the simplicity of local methods has resulted in the development of several preparations. Troches in doses of 5,000 units may be dissolved in the mouth at intervals of $\frac{1}{2}$ to 1 hour during the waking hours or during the whole 24-hour period. Masticatory troches are available containing

20,000 units. Solutions of penicillin in varying concentrations up to 100,000 units dissolved in several c.c. of a watery solution may be held in the mouth for several minutes or used as a mouth wash at short intervals. Dental cones, cotton pledgets, and gauze saturated with penicillin (up to 100,000 units in 1 to 10 c.c.) can be inserted daily into tooth sockets. Applications of penicillin to the eye involve the same principles as treatment to other areas locally.

STREPTOMYCIN

Streptomycin is administered almost exclusively by intermittent intramuscular injection.[14] Intravenous and subcutaneous routes have been abandoned because of increased incidence of constitutional and local reactions. Because of the delayed excretion of streptomycin, administration by continous infusion does not offer any advantage. The intramuscular dose is best dissolved in 1 to 5 c.c. of distilled water and injected into the gluteal regions, lateral aspect of the thigh, or deltoid area. As much as 0.5 Gm. may be dissolved in 1 c.c. of diluent. Pain may be reduced by the addition of 0.5 to 1 c.c. of 1 to 2 per cent procaine solution. Recommended dosage schedules are shown in table 2.

When necessary, doses of 10 to 20 mg. dissolved in 5 to 10 c.c. of isotonic salt solution may be injected into the cerebrospinal fluid (lumbar area, ventricles, or cisterna magna) daily. Large doses may produce signs of meningeal irritation and neurologic complications. The streptomycin solution should be injected slowly and only after a slightly greater volume of cerebrospinal fluid has been withdrawn. For intrapleural, intrapericardial and intraperitoneal administration daily doses of 50 to 500 mg. dissolved in 10 to 100 c.c. of isotonic salt solution may be injected after as much pus as possible is aspirated. The pleural and pericardial cavities should be irrigated with isotonic salt solution before the streptomycin solution is injected. As much as 1 Gm. has been put into the peritoneal cavity at the time of aspiration. Parenteral therapy should also be given when there is infection elsewhere in addition to involvement of the serous cavity.

Local therapy of infections of the trachea and bronchial tree is accomplished either as an aerosol or by direct instillation. Nebulization may be employed at intervals of 4 to 6 hours with doses of 50 to 200 mg. dissolved in 1 to 3 c.c. of isotonic salt solution or distilled water. More concentrated solutions should not be employed since they clog the nebulizer and cause frothing. As an alternative, 5 c.c. of a solution containing up to 10 milligrams of streptomycin may be instilled directly into the trachea. Pulmonary infections require adjuvant parenteral therapy, since only neglible amounts of streptomycin are absorbed through the trachea into the blood stream.

TABLE 2

Dosage Schedule of Streptomycin Administered by Intermittent Intramuscular Injection Calculated on the Basis of Desired Blood Concentration

INTERVAL (HOURS)	BLOOD CONCENTRATION DESIRED (MICROGRAMS PER C.C.)						
	1	2	3	4	5	9	12
	Doses of Streptomycin (Grams)						
2	0.025	0.05	0.1	0.2	0.3	0.4	0.5
3	0.05	0.1	0.2	0.3	0.4	0.5	0.75
4	0.1	0.2	0.3	0.4	0.5	0.75	1.0
6	0.2	0.3	0.4	0.5	0.75	1.0	
8	0.3	0.4	0.5	0.75	1.0		
10	0.4	0.5	0.75	1.0			
12	0.5	0.75	1.0				
18	0.75	1.0					
24	1.0						

Oral therapy is recommended pre- and postoperatively for patients undergoing bowel surgery and in conjunction with parenteral therapy for the treatment of susceptible enteric infections. Total daily doses of 2 to 6 Gm. may be given daily in orange juice or other liquids with as much as 2 Gm. in a single dose and the larger amounts in divided doses at regular intervals.

Streptomycin in concentrations of 10 mg. per c.c. may be used as nose drops or for instillation into the conjunctivae in the treatment of susceptible infections of these structures. Five drops every 3 hours may be instilled into each nostril, and 2 drops every 4 hours in each eye. Up to 20 mg. per c.c. may be used for instillation into the external auditory canals in the treatment of otitis externa. The antibiotic can be applied locally to wounds in concentrations of 10 to 50 mg. per c.c. as wet dressings, or an ointment containing 10 milligrams per gram may be used. Dihydrostreptomycin, a modification of streptomycin, may be used similarly except that it may be more irritating on injection into the cerebrospinal fluid and its use there should be avoided.

AUREOMYCIN

Aureomycin is given almost exclusively by mouth. Optimum dosage-schedules have not been finally determined for most susceptible infections. In general 0.5 Gm. every 6 hours is adequate for the treatment of most infections.[15] For severe infections 0.75 to 1 Gm. may be given every 4 to 6 hours until improvement has occurred, at which time the smaller doses may be used. The larger doses frequently, and the smaller doses occasionally, precipitate nausea, vomiting and diarrhea. The administration of alkalis and food concomitantly with the aureomycin reduces the frequency and severity of the upper gastrointestinal symptoms. Reduction in the dose and frequency of administration, particularly the former, is often helpful in eliminating or diminishing these complications. In infants and children the bitter taste of aureomycin may be disguished by the use of sweetened or highly flavored foods.

Intravenous administraction is frequently followed by phlebitis. Amounts up to 500 mg. may be dissolved in 500 to 1,000 c.c. of 5 per cent dextrose solution and injected slowly over a period of 1 to several hours. Phlebitis may be minimized by the use of smaller amounts up to 100 mg. dissolved in 10 c.c. of 0.75 per cent sodium carbonate solution given slowly through a syringe. These may be repeated at 12-hour intervals or more often if necessary. Intramuscular therapy has thus far proved to be extremely unsatisfactory because of local reactions. Doses of 50 to 200 mg. may be given in appropriate amounts of alkaline buffered solution containing leucine and procaine. Oral administration should be instituted as soon as possible.

For the treatment of ocular infections aureomycin borate is available in the form of a powder which can be made up into a 0.5 per cent solution (5 mg. per c.c.) and a few drops instilled into the conjunctival sac at intervals of 1 to 2 hours and at longer intervals after improvement has ensued. The solution tends to deteriorate and should not be used if kept for more than 24 hours at room temperature or for more than 48 hours if under refrigeration. For the treatment of local infections an ointment containing 30 mg. of aureomycin per gram is obtainable. Troches containing 15 mg. of aureomycin are available when treatment of infections of the mouth and throat by a local method is desired.

CHLOROMYCETIN

Chloromycetin is administered exclusively by the oral route because adequate vehicles for parenteral administration are not available.[16] Parenteral injections of chloromycetin in solution with the usual diluents frequently result in severe local reactions. For most infections a total dose of 10 to 15 Gm. is usually adequate. An initial dose of 3 to 4 Gm. is followed by 3 Gm. per day in divided doses every 3, 4 or 6 hours. The longer interval is as efficacious, and the night dose may be omitted. For most infectious diseases, other than typhoid fever and brucellosis, therapy need be continued only until the infection is clinically controlled. In these diseases therapy is best continued for 2 to 3 weeks longer in gradually decreasing doses from 2 to 1 Gm. per day.

NOTE: The clinical use of aureomycin and chloromycetin is still in its early stages. The dosage schedules suggested are tentative and are based on proven information available at this time. Already modifications have been proposed, but have not received sufficient trial for general use.

(Continued on page 177)

President's Page

ON FOLLOW-UP STUDIES

"Doctors bury their mistakes." This old cliché, dear to the hearts of the minor critics of the medical profession, is close enough to the truth to demand occasional reëxamination. From the psychological standpoint, however, it is not the fatalities that disturb the serenity of the doctor, since the finality of death is the easiest of all to adjust to. Rather it is such things as the continuation of complaints, the development of complications, and the persistence of disability that are eloquent reminders that the doctor has erred in judgment or performance, or has been defeated by the nature of the disorder he has essayed to cure.

My teacher of surgery, John B. Deaver, frequently cheered medical students by telling them, with appropriate gestures, that the surgeon had to have the heart of a lion, the touch of a woman, and the constitution of a mule. These attributes are necessary in a long-term follow-up study of any particular disorder or method of therapy. There are numerous examples of persistence, one might almost say single-minded dedication, to the pursuit of patients who have come under the care of individual doctors, or organized groups.

Statistics of two thousand cases of any condition may make dry reading, but they present an over-all picture that includes practically all of the variations and complications ever encountered. Cushing reported a series of two thousand verified intracranial tumors as long ago as 1931, and this study is still being continued on the survivors. Babcock more recently has reported upon a similar number of tumors of the colon.

The long-range follow-up program is the most effective method of determining what is likely to occur and what can be done about it. And as far as the doctor is concerned, such a program gives him an incentive, a hobby, or an obsession, depending upon the point of view.

Walter Freeman

The Cancer Bulletin

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RECENT ADVANCES IN CANCER

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THE VALUE OF ROUTINE PROCTOSCOPY*

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It has been pointed out by many clinicians over a period of years that a proctoscopic examination is advisable in any routine physical examination and is an absolute necessity in the examination of any patient with rectal complaints. An incidence of rectal pathologic findings in the general population on routine physicals or autopsies of 3 to 8 per cent has been reported,[1, 2, 3] a 5.5 per cent incidence of lesions in cases without symptoms,[4] and a 20 per cent incidence of major rectal lesions in cases with rectal symptoms.[5] We have been concerned primarily with cancer or precancerous lesions with and without symptoms. Although our findings merely confirm the findings of others, they may aid in emphasizing the value of routine proctoscopic examination of all patients.

SOURCE OF MATERIAL

All patients seen at the Cancer Clinic during the period from January 1, 1948 to April 30, 1949 were reviewed. A total of 2,103 patients were examined during this period. There was a 17.2 per cent (362 cases) incidence of all types of cancer among these cases. A total of 1,566 patients received a complete physical examination in addition to an evaluation of the local lesions which brought them to the clinic. Of these, 747 patients were proctoscoped. This constituted 47.7 per cent of the group who received more than a local examination. Of the cancer patients, 30.9 per cent received proctoscopic examinations plus a general physical, 48.9 per cent received a general physical alone, and 20.2 per cent had local examinations only.

Reasons for failure to perform a proctoscopy were varied, but fell into 2 main groups: First, some patients would not prepare themselves for the examination because they felt it was not necessary when their complaints were totally unrelated to the rectum or lower gastrointestinal tract; second, some patients were too ill to undergo the procedure and were admitted to the hospital without delay. The first factor could be overcome by education of the public; in fact, this factor is being rectified so that few patients are now being examined without having a routine proctoscopy (table 1).

Proctoscopy is a simple procedure, but, as in any other examination, is only as good as the examiner is capable and careful. Each examiner has had instruction in the use of the scope and has been taught the normal as well as the pathologic variations which may be encountered.

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Preparation of the patient prior to examination is most important for a satisfactory visualization up to the 25-centimeter level. The routine has been as follows: About 3 hours prior to the examination plain water enemas are taken by the patient until returns are clear. The patient is allowed to eat his meals as usual. Laxatives alone are not adequate unless combined with enemas, but enemas alone will usually suffice.

TABLE 1

MONTH	TOTAL PATIENTS SEEN	COMPLETE PHYSICAL EXCEPT FOR PROCTOSCOPY	COMPLETE PHYSICAL INCLUDING PROCTOSCOPY
January '48	160	93	40
February	146	81	28
March	177	100	43
April	151	70	47
May	175	74	56
June	143	76	39
July	150	50	67
August	142	56	59
September	101	25	59
October	106	35	40
November	116	37	49
December	104	31	33
January '49	119	33	44
February	87	21	36
March	109	21	53
April	117	16	54
Total	2,103	819	747

RESULTS

In the group of 747 patients who had proctoscopic examinations as part of their routine physical, 77.3 per cent had no lower gastrointestinal symptoms. Symptoms of the others were defined as bleeding of any kind (scant, occasional, or otherwise), persistent diarrhea, change in bowel habits (change in frequency of defecation, change in size of stools, alternate diarrhea and constipation, etc.). Chronic constipation without recent change was not included as a symptom.

Of the total group of 747, 23.2 per cent were found to have lower bowel lesions (table 2).

TABLE 2

PER CENT	NUMBER	FINDINGS
76.8	573	No disease
3.0	22	Polyps
0.9	7	Cancer
14.0	105	Hemorrhoids
5 plus		Others (fissure, fistula, ulcerations, etc., including 1 case of amebiasis)

Of the 22 cases with lower bowel polyps 40.9 per cent had had no symptoms. Three of the 7 patients with proven lower bowel cancer had had no symptoms.

There have been no serious complications in our experience, the most serious being postbiopsy bleeding requiring hospitalization for control. In 3 recent series, of 1,014,[6] 1,893,[5] and 2,000 cases[4] each, no serious difficulty was reported.

ILLUSTRATIVE CASE HISTORIES

Case 1. 1280-48, L. M., a white woman aged 55, was referred to the Clinic by her private physican to make sure she did not have cancer. The patient had requested this check because of her age. She had had no gastrointestinal symptoms. Proctoscopy revealed a polyp at the 13 cm. level. This was removed. The microscopic appearance was borderline. A barium enema was negative. The patient was followed at monthly intervals, and 4 months later another polyp appeared at the same level but in a different area. This was removed and diagnosed as adenocarcinoma, Grade I.

Case 2. 913-48, T. P., a white woman aged 51, was referred from the George Washington University Hospital Prevention Clinic, where, on routine physical, a rectal polyp 2 cm. in size at the 11 cm. level was found. A biopsy of this lesion taken at our Clinic showed adenocarcinoma, Grade II. A barium enema was negative.

Case 3. 1299-48, R. McD., a white woman aged 48, was referred to the Clinic because of a question of a change in caliber of stools. There had been no change in bowel habits and no weight loss. On proctoscopy, a 10 × 3 mm. polyp was found at the 16 cm. level. This was removed and showed adenocarcinoma on microscopic examination.

Case 4. 1528-48, M. B., a colored woman aged 30, had had a history of rectal bleeding for 2 years. The blood was on and mixed with the stool. At the onset of symptoms a proctoscopy and barium enema had been done and no lesion found. The first proctoscopic examination at the Clinic revealed bloody mucus coming from above the 25 cm. level. Repeat examination 1 week later revealed the same finding. An upper gastrointestinal series, small bowel study, and 2 barium enemas were negative, as were studies for blood dyscrasias. On again repeating the proctoscopy a polyp was seen at 25 cm. It retracted easily from sight. This was examined and found to be histologically benign. The entire polyp was then removed by laparotomy, and further pathologic examination showed only an adenomatous polyp.

Case 5. 523-48, M. B., a white man aged 75, had a history of 1 episode of diarrhea 5 years prior to admission. He had been proctoscoped at that time and no lesion had been found. Two years prior to entry he noted rectal bleeding which increased in severity and frequency so that by the time of admission he was having bloody stools several times each day. Eighteen months prior he had had a negative barium enema. Six weeks before admission a digital examination was negative. On his first proctoscopic examination in the Clinic a large granular polyp was found at the 5 cm. level. This was examined and diagnosed as an adenomatous polyp. The entire polyp was removed and on further study was classified as an adenocarcinoma, Grade I. The patient had an abdominoperineal resection of the rectum. He died 11 months after the operation with no evidence of recurrence.

Discussion

It has been estimated that from 60 to 90 per cent of colonic and rectal polyps will undergo malignant change.[3, 7] Assuming these estimates to be reliable, it is obvious that cases of lower bowel cancer are prevented, and more could be prevented by the proper removal of these polyps when found. As 50 to 70 per cent of all colonic polyps occur within reach of the 25 cm. proctoscope,[1, 2, 4, 7] and as about 40 per cent of patients with these lesions in this series were without symptoms, the value of the routine use of the proctoscope is obvious. In each 100 individuals examined about 3 cases of preventable cancer will have been found.

When a polyp has been found, it is mandatory that the patient should remain under surveillance the rest of his life, because he is a candidate for the development of other polyps. Craig[8] has emphasized this. Hence, when one has been found others must always be looked for. A barium enema should also be carried out in each such case in an attempt to find other lesions above the 25 cm. level.

The routine use of X-ray examinations of the general public has been shown to be impractical both from the viewpoint of available trained personnel and finances.[6] However, patients with definite lower gastrointestinal symptoms even with a negative proctoscopic warrant a barium enema as an aid in diagnosing lesions above the reach of the proctoscope.

Summary

1. Results of an attempt at routine proctoscopy of all patients examined has been presented.
2. A 3.9 per cent incidence of cancer or precancerous lesions (polyps) was found.
3. Reasons for including a routine proctoscopic examination as part of every complete physical examination have been given.

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Editorials

OUR STAKE IN SECURITY

"Despair is the conclusion of fools"—Disraeli

All over the world there are medical questions which stagger human comprehension as they are first examined. Yet, it is entirely possible to bring early reassurance to many people in spite of dire predictions and widespread scare-stories of hopeless futility if war should ever come again. Perhaps the present situation is exaggerated by publicized opinions of individuals more or less prominent in their fields. There has been insufficient cognizance given to over-all possibilities as well as to man's past survival from risks of relatively equal magnitude for their times. Of course only the future will reveal the extent of catastrophe in those instances where people make no effort to save themselves. On the other hand, American medicine has never been prone to an attitude of hopeless acceptance of death or defeat.

A great good will come from "calm courage in the midst of tumult, that serenity of soul in danger, which is the greatest gift of nature for command" (Voltaire). Physicians will achieve more along that line perhaps than most others could. They should learn and actively teach Americans the facts concerning measures of potential success. Some may be employed in a precautionary and others in a reparative manner wherever our citizens might be exposed to man-made terrors of superbombs, biological attacks, psychological warfare and others yet to be presented sensationally or irresponsibly.

We should correct untruths or ideas of inadequacies, many prevalent as a result of implied inferiorities. The latter are relative rather than real, and the motives for their introduction should be examined before acceptance. The base line of America's health is more firm for projecting counter-measures than that of any other nation, regardless of the many improvements admittedly possible or required to be made. Recent American successes in the face of enemies of unprecedented offensive power confirm that only a deliberate neglect of the reasons for our past health achievements or a failure to advance our future medical leadership and performances could make us fail—at least to a degree of failure more possible for other nations equally menaced.

Correct knowledge in itself constitutes a "secret weapon" equal in power to a maximum and intelligent application of available resources. Predicted breakdowns may occur but are less likely if we will spend as much effort energetically insuring the proper future application of our resources as has been devoted to talk. This approach requires mutual confidence between military and civil administrators, an understanding coöperation between military and civilian physicians, and maximum teaching of the public by all. Let us tell them accurately what to expect, what to do and when, and how to exist while resisting all attacks. Past experience and training qualify military personnel to be the greatest source for advice and initial support to key civilians, who should then assume all responsibility for educating the civilian professions and informing the public. The initiative in this matter rests with civilian physicians. They may rightfully ask and expect appropriate

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia

and authorized military participation along those lines.

In the event military participation ever should become necessary to aid civil authorities, we must have insured previously that we will have:

1. Educated civil and military authorities in their responsibilities so physicians may adapt their medical plans to over-all systems.
2. Created understanding of the relationships which must exist between civil and military administrators and between them and their superiors.
3. Set up functional systems most likely to reëstablish civil administration quickly with minimum diversion of military means or energy from primary military missions.
4. Civilian performance under maximum civil control with minimum military supervision or interference.

A nation as great as this should demand no better odds than we have now. What is required is optimistic system as well as attention to the deal and the later playing of the game after the bets are placed.

COLONEL WILLIAM L. WILSON, M.C.,U. S. A.
Special Assistant to The Surgeon General,
Department of the Army

DEATH BY VIOLENCE

Some of our most active and agile contortionists in the realm of vital statistics have long and loudly bemoaned the fact that we are not the healthiest nation in the world. Admittedly, this is true with respect to several commonly used indices, such as infant mortality, pneumonia, and tuberculosis. Thus, on the basis of our own vital statistics for 1940 and those of 6 other progressive nations with which we are frequently and unfavorably compared, the United States was fourth in tuberculosis mortality. We were third in pneumonia and sixth in infant mortality (tables 1, 2, and 3.) Perhaps we should pause a bit before the asterisks in the tables to note that the rates of Australia and New Zealand are for the white race only, excluding their native populations, whereas our own statistics are for all of our people, white and non-white.

TABLE 1

Mortality from Tuberculosis per 100,000 Population

NATION	RATE		RELATIVE RATE (1940)
	1940	1947	
New Zealand	30*		1.0
Australia	33*		1.1
Netherlands	41	37	1.4
United States	47	34	1.6
Canada	53		1.8
Sweden	75	51	2.5
Norway	86	65†	2.9

* White rate only; excludes native population.
† 1946; 1947 rate unavailable.

TABLE 2

Mortality from Pneumonia per 100,000 Population

NATION	RATE 1940	RELATIVE RATE
New Zealand	34*	1.0
Canada	54	1.6
United States	57	1.7
Australia	57*	1.7
Netherlands	62	1.8
Sweden	65	1.9
Norway	84	2.5

* White rate only; excludes native population.

TABLE 3

Infant Mortality per 1,000 Live Births—1940

NATION	RATE		RELATIVE RATE—1940
	1940	1947	
New Zealand	30*		1.0
Netherlands	39	33	1.3
Australia	38*	29*	1.3
Norway	39		1.3
Sweden	39	25	1.3
United States	47	32	1.6
Canada	54		1.9

* White population only.

Since 1940 our progress in most aspects of public health have been commendable if not wholly satisfactory. Infant mortality and deaths from tuberculosis have both been cut so sharply that we have inched ahead of the Netherlands (tables 1 and 3). Deaths from pneumonia have likewise yielded to our efforts. Along with other leading nations of the world we have conquered infectious diseases to so great a degree that cancer has now become one of the leading causes of death in children.

There is one glaring exception to these gains. Violence in its various forms now takes about as many lives as it did 10 years ago. At that time our rate for all violent deaths was over twice the rate of the Netherlands (table 4) and just twice our own rate for tuberculosis. For homicide alone our rate of 6.2 per hundred thousand persons was over 15 times the rate of the Netherlands and over 4 times that of our nearest competitor in manslaughter. Since 1940 our progress in the control of other causes of death has only served to increase the relative importance of violence.

TABLE 4

Deaths from Violence per 100,000 Population—1940

NATION	SUICIDE	HOMICIDE	ACCIDENTS	TOTAL	RELATIVE RATE
Netherlands	10.8	0.4	34.6	46	1.0
Canada	17.7	0.4	34.2	52	1.1
Norway	6.9	0.6	45.0	53	1.1
New Zealand	10.9	0.5	45.6	59*	1.3
Sweden	17.0	0.8	43.6	62	1.4
Australia	10.6	1.4	56.0	68	1.5
United States	14.3	6.2	73.5	94	2.1

* Rates for white population only.

It is easy to underestimate the importance of violence by looking at the over-all mortality rates for all age groups. Certainly, heart disease and cancer are still the leading causes of death. But they claim the lives only of those who have been chronically ill, many of whom have lived out their lives of three score or more. Violence kills the young and healthy.

Up to the age of 25 accidents take more lives than any disease (tables 5 and 6). From 1 to 25 years of age accidental death is not only far in the lead, but completely dwarfs any other cause of death by taking 30 to 40 per cent of all lives lost in each age group.* Until 20 years of age accidents kill 5 times as many victims as tuberculosis and 3 times as many as pneumonia, the nearest competitors for the ghoulish honor.

TABLE 5

Some Leading Causes of Death in Children

Deaths per 100,000 Persons to the Nearest Whole Number*

CAUSE	AGES 1–4	AGES 5–9	AGES 10–14
Accidents	42	27	26
Pneumonia	25	5	4
Tuberculosis	7	2	4
Rheumatic fever and heart disease combined	3	4	7
Cancer	5	3	3
Nephritis	2	2	2
Total Rate—All Causes	159	70	68

* From the National Office of Vital Statistics, Vol. 31, No. 11.

If we look at any of the usual tabulations of the leading causes of death neither suicide nor homicide will be found. Yet, if we focus our attention on young adults both suicide and homi-

TABLE 6

Some Leading Causes of Death in Young Adults

Deaths per 100,000 Persons to the Nearest Whole Number

CAUSE	AGES 15–19	AGES 20–24	AGES 25–30
Accidents	52	62	50
Tuberculosis	16	30	33
Rheumatic fever and all forms of heart disease	8	10	15
Homicide	4	10	12
Pneumonia	4	10	12
Cancer	4	7	11
Suicide	3	6	8
Nephritis	3	5	6
Total Rate—All Causes	127	176	193

* Based upon data from National Office of Vital Statistics, 1947.

cide (table 6) must be accommodated among the leaders. Even from 15 to 19 years of age all the usual childhood diseases, including diphtheria and poliomyelitis, together with typhoid, malaria, meningitis, syphilis, and acute rheumatic fever together are just about able to match death for death with suicide. The toll from homicide is still greater, especially from the 20th to the 30th year, when it takes 50 per cent more lives than suicide.

Many of our sincere welfare workers regularly cite the higher mortality rates of the Negro as telling evidence of the "failure" of our present medical services. We cannot dismiss this point lightly, for it is true that the non-white mortality rate in every age group and for each cause is distinctly higher than the corresponding rate for the white population. Regardless of the heartening progress to close these gaps in recent years there is still much work to be done, some of it by the medical profession. But while we are looking at the race differences in death rates from tuberculosis, pneumonia, infant mortality and maternal mortality, we should not overlook equally important differences in the rates for deaths by violence. In every age group the rates for violent death are much higher in the Negro. Suicides occur with about equal frequency in the two races so that the great differences are due entirely to higher rates for accidents and homicide, especially in the male. From 15 to 30 years of age homicide is the third leading cause of death in colored males (table 7), being surpassed only by accidents and tuberculosis in a very close race. In this segment of our population homicide alone furnishes one fourth of all death certificates. The spectacularly high homicide rate in colored men accounts for 35 per cent of difference between the white and non-white mortality rates at these ages (15 to 30). About one half of all deaths in the colored male from the 15th to the 30th years are due to homicide and accident.

TABLE 7

Some Leading Causes of Death in Non-white Males from 15 to 30 Years of Age (1947)

Deaths per 100,000 Persons to the Nearest Whole Number

CAUSE	AGES 15–19	AGES 20–24	AGES 25–30
Accidents	92	104	106
Tuberculosis	52	110	118
Homicide	33	95	119
Rheumatic fever and all forms of heart disease	13	19	32
Pneumonia	10	12	18
Cancer	4	8	8
Suicide	3	7	9
Total Rate—All Causes	257	429	510

Those who survive the furies of violence by the grace of timely medical care will eventually be listed among those notorious "rejections" of the Selective Service System, both white and non-white, under the heading of "musculo-skeletal defects," "amputations," "residuals of injuries," etc.

We shall not countenance any relaxation in our fight against disease, but it is about time that we turn about and face our chief enemy, violence. A reduction of this accidental and intentional slaughter of our children and young people by as little as 25 per cent would have more telling effect upon our vital statistics and upon our manpower than the absolute and complete eradication of tuberculosis.

MAURICE H. FRIEDMAN, M.D.

MEDICAL CARE FOR THE INDIGENT

In the mind of the average practitioner of medicine in this community medical care for the indigent has become synonymous with admission to Gallinger Municipal Hospital. This is an entirely erroneous conclusion and certainly one that is not supported by the facts. Actually, the Health Department of this community has a well organized program for the care of the medically indigent for both inpatient and outpatient care. Familiarization with the basic details and structure of this program will in most cases save the individual physician considerable time and delay in obtaining the necessary medical care for his patient.

Through the District Physician Program supervised by the Hospital Permit Bureau of the District Health Department, medical care is provided the indigents in their homes. The city of Washington has been divided into five districts which coincide with police precinct boundaries. A physician is available in each district on a twenty-four hour basis.

District physicians provide home medical care to the indigent in the same fashion that other practitioners do in their private practice. These physicians can be obtained by calling the precinct station in the precinct in which the patient resides or by calling the Hospital Permit Bureau during its office hours, 8:15 a.m. to 4:45 p.m., Monday through Friday. The call is then transmitted by the Police Department or the Bureau to the appropriate physician, who visits the home. Prescriptions for the medically indigent are filled at no cost to the patient at pharmacies maintained by the District Health Department for this purpose. Where nursing or special types of home care are required the physician can make arrangements for these types of care through either the Instructive Visiting Nurses' Society or the Health Department Nursing Service. Where the physician feels from his contact at the patient's home that the patient should pay for medical care, he so informs the Hospital Permit Bureau, which investigates the situation and advises the District physician accordingly.

When the patient is found to be in need of continued care and additional diagnostic procedures, the District physician will refer the patient to the Hospital Permit Bureau for clearance for clinic referral and treatment. Incidentally, this agency of the Health Department is charged by the District Commissioner with the responsibility for determining the financial and residency qualifications of patients for hospital care. After proper clearance the patient is referred to the clinic closest to his home that is able to give the care required. In selected cases in which the patient is unable to get to the clinic under his own power, ambulance transfer to and from the clinic is arranged through the Health Department. The clinic may be one maintained by the Health Department or may be one of the clinics in the eight contract hospitals. In order to make adequate clinic and hospital care to the indigent more readily available the District Government has seen fit to contract with the following hospitals: Casualty, Children's, Emergency, Episcopal, Garfield, Georgetown, George Washington and Providence. These contracts provide for emergency medical inpatient care as well as clinic care at these hospitals for the medically indigent certified by the Hospital Permit Bureau at certain predetermined fees. Money for this purpose appropriated by the Congress for the present fiscal year comes to almost $700,000.

In those cases in which the District physician feels that hospital therapy is necessary, arrangements for such treatment are made directly by the District physician in coöperation with the Hospital Permit Bureau. It must be remembered that, according to District law, eligibility for hospitalization at District Government expense depends on certain residency requirements, except in emergency cases. In most cases patients are hospitalized at Gallinger Municipal Hospital. When the patient has been previously cared for in one of the contract hospitals and desires to return to that hospital, attempts are made to return the patient to the specific hospital, provided that a bed is available. If the patient is unable to proceed to the hospital under his own power, the District Health Department will provide ambulance transfer to the hospital. This service can also be arranged by the physician through the Hospital Permit Bureau or directly with the ambulance service itself.

In addition to the services described above, the District Government together with the United States Public Health Service is launching a program of home care for the chronically ill. Experience with this program in other cities has revealed appreciable benefits to the indigent who is chronically ill. The advisability of building additional Health Centers designed particularly for maternal and child welfare, tuberculous and venereal disease control is also being seriously discussed at present in certain bureaus of the Health Department.

From these facts it is quite obvious that not only does the District Government have an adequate program for the care of the medically indigent but is also constantly on the alert for ways to improve this program. And for those who are constantly criticizing and deploring the present situation there is but one answer, "Seek and ye shall find."

LAWRENCE J. THOMAS, M.D.
Staff Physician, Hospital Permit Bureau, D. C. Health Department

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, headed by Dr. Henry A. Grennan, through which requests for speakers for lay groups are filled.

Date	*Speaker*	*Subject or Title*	*Organization*
January 23	Dr. Julius Schreiber	Emotional Needs of the Child from 6 to 12	Patrick Henry Parent-Teachers Association
January 25	Dr. Reuben Sorkin	Child Care	Washington Highlands Jewish Center
January 31	Dr. William T. Gibb, Jr.	Diseases of the Gastro-intestinal Tract	Coöperative Nurses, Inc.
February 1	Dr. Julius Schreiber	Emotional Needs of the Preschool Child	Friends' Parent-Teachers Association
February 6	Dr. Walter Teichmann	The Significance of Growths on Face and Scalp	Alexandria Hairdressers' Association
February 7	Dr. Benjamin Manchester	Recent Advances in the Treatment of Heart Disease	Coöperative Nurses, Inc.
February 9	Dr. James J. Feffer	Tuberculosis	Washington Nurses Association
March 15	Dr. Dorothy Donley-Dowd	Childhood Fears	Benning Parent-Teachers Association

In and Out of Focus

BY THE OBSERVER

Our Prepayment Plan

The Society's prepayment plan, Medical Service of the District of Columbia, hasn't been mentioned in this column for some time. This has not been due to indifference but rather to oversight. Too many other matters, most of them of far less importance, have engaged your Observer's attention. Despite his neglect, it is his opinion that nothing in the Society's present program, outside of the scientific, is so important as the success of the Service.

There are indications that some—perhaps many—physicians do not look upon the Service as their plan. Their attitude seems to be that which they hold toward an organization with which they do business. Somehow this attitude must be replaced by a realization that Medical Service is their responsibility and that it will be no better than they make it.

The Service's progress from the standpoint of subscriber-growth has been most satisfactory. The plan began operation on April 1, 1948 and on December 31 of that year 110,000 persons were covered. This number had increased to 193,000 on December 31, 1949.

During the first year, that is, from April 1 to December 31, 1948, participating physicians, then numbering approximately 425, were paid a total of $178,102.00. In the year 1949, payments to some 1,750 physicians totaled $1,039,971.00.

Now, of course, no medical prepayment plan is without its shortcomings, and Medical Service has its quota. Recently it was discovered that there was too much of a drain on the Service's finances due to defects in the subscriber's contract and the lack of proper underwriting controls.

Late in 1949 it was decided to revise the contract because some of its provisions resulted in adverse selection and abuses by subscribers. Strict adherence to requirements with respect to participation of a larger percentage of subscriber groups was agreed upon. A ten-month waiting period in any preëxisting disease or injury and for tonsillectomies and adenoidectomies was imposed. The three-rate structure, under which a single person, man and wife, and the family paid varying subscription rates, was replaced by a two-rate structure whereby subscribers' contracts are limited to single and family (husband and wife or husband, wife and children) categories. The rate for the first is $.80 a month and for the latter $2.00. The reason for this change was to effect a financial saving and to distribute benefits more equitably. All of these provisions became effective on February 1, 1950.

In the very near future individuals will be able to participate in Medical Service and Group Hospitalization. Subscription rates will be 20 per cent higher for this group.

It is planned to broaden benefits to subscribers to include medical service in the hospital and certain office procedures. These will be authorized as soon as conditions warrant. Revision of the physicians' fee schedule will also be undertaken when the situation permits.

Administration of Medical Service by Group Hospitalization, Inc. has been most satisfactory to the Board of Trustees of the Service. Mr. F. P. Rawlings, Jr., Director of Group Hospitalization, Inc., and the Assistant Director, Mr. Harmon J. Swink, have worked tirelessly in an effort to make the Service function smoothly. They deserve the commendation which they have received from those familiar with their work.

The Trustees, who, of course, are responsible for the policies of the organization, have been conscientiously attentive to their duties, as will be shown by the reports which will be given at the Annual Business Meeting of the SERVICE to be held early in April. However, much of the burden of directing the plan falls on the President, Dr. Frank G. Costenbader, whose patience and good judgment have been important factors in the plan's success to date. Credit is also due Dr. A. Clagett Gray, Medical Adviser to Group Hospitalization, Inc., whose services have been invaluable. The medical profession would be hard put to find a more conscientious and able adviser.

Before concluding this recital, mention should again be made of the fact that doctors participating in the SERVICE can do what no one else can to make it sound, workable and efficient.

How can the participating physician help? Here are some suggestions:

1. By seeing to it that patients get all the service to which they are entitled—not more, because that will jeopardize the soundness of the plan.

2. By providing all the data requested. There need be no hesitation on this score. The subscriber-contract specifies that the holder authorizes his physician to supply the data needed by MEDICAL SERVICE. Forms which you are required to complete have purposely been made brief so that it will not take too much of your time.

3. By submitting statements for services rendered promptly so that there will be no unnecessary delay in settlement. There are certain investigations which must be made as a routine matter and these require time.

4. By calling the Claims Department, Republic 5000, when misunderstandings arise.

5. By remembering that the plan is not perfect. Much remains to be learned. When defects become apparent they are corrected as promptly as possible.

This is the medical profession's great opportunity and your Observer feels certain that they will make the best of it.

Informed Speakers Needed

There is urgent need for more physicians who are competent to speak authoritatively to lay audiences on medical socioeconomic problems. That is as true in the District of Columbia as it is in most other communities. The few who are qualified have been called upon so often they have become very weary of their assignments. Refusals are, therefore, becoming more frequent. Now, there is no dearth of physicians who, with little encouragement, would accept speaking engagements on "socialized medicine." However, they are too often long on opinion and short on facts. Not infrequently they become emotional when they discuss this subject. What is needed is a calm, objective approach in which facts are marshalled in an orderly and effective manner to support the position taken. This requires study or the acquisition of facts by some other method.

The Committee on Public Relations, which is responsible for the Medical Society's Speakers' Bureau, gave this matter consideration at a recent meeting. It decided to create a special subcommittee to be responsible for developing speakers on medical socioeconomic subjects. Shortly after its appointment, the subcommittee met. It agreed upon the desirability of developing basic outlines for speakers who appear before lay audiences. Speakers will, of course, be expected to employ their own methods of presentation. Uniformity would be expected only where the basic points are concerned.

The next step will be to seek volunteers. This will be done by canvassing the Society. If previous efforts along this line are a criterion, an excellent response can be anticipated.

The subcommittee also plans to make available a public speaking course planned for physicians. A similar course, sponsored by the Society some years ago, was very successful. As soon as details have been worked out members will be notified.

The medical profession in the District have been too inarticulate where controversial medical care problems are concerned. The subcommittee's plans should go a long way toward remedying this situation.

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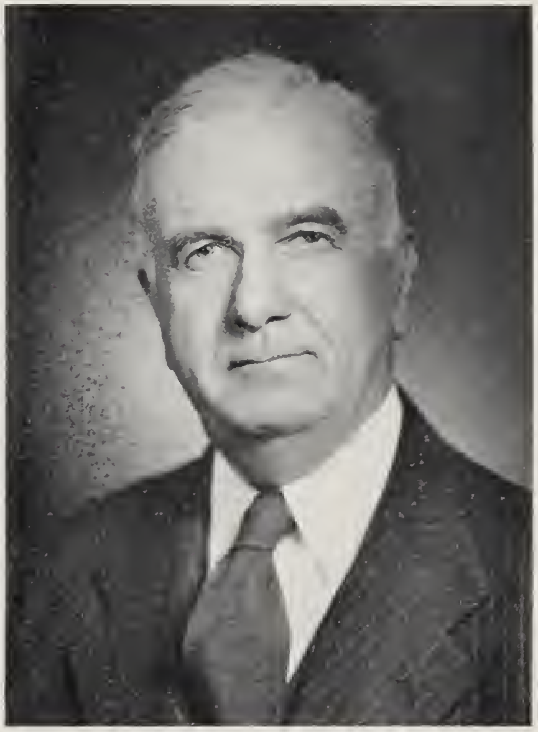
"... Good and Faithful Servant"

An event occurred on January 1, 1950 which should not be permitted to go unnoticed by the rank-and-file of members. Dr. Coursen Baxter Conklin's term as delegate to the American Medical Association expired on that date, thus concluding 27 consecutive years of faithful service to the District Medical Society.

There is naturally considerable difference in the manner in which members serve the Society. Some contribute much more than others because of responsibilities placed upon them. Dr. Conklin was one of whom a great deal was expected. How well he met the demands made upon him is a matter of record.

Dr. Conklin was chosen Secretary-Treasurer of the Society in 1922, a year or so after the present building at 1718 M Street, N.W., was completed and ready for occupancy. While he was expected to serve only on a part-time basis, he gave more than generously of his time from the very beginning. His first office was opened on the third floor, now used as store rooms, because the Society was opposed to its downstairs rooms being used as offices. It was then the opinion of the Society that its nonscientific activities should be kept to a minimum, emphasis being placed nearly exclusively on its primary objective—"the promotion of the science and art of medicine." Dr. Conklin, in the early period of his tenure of office, had, therefore, to be content with the rather primitive quarters allotted him. It was not long before he was permitted to move to the first floor where he took over one room which had previously been a lounge.

There were, of course, other ways in which Dr. Conklin found pioneering in medical organization work difficult. Not many medical societies in those days had established office procedures which might be used as a guide. A system had to be devised which, together with the establishment of adequate organization machinery, was no small undertaking for a part-time officer. Social and economic problems of medicine in the early twenties were also pressing for attention which made organization and efficiency more urgent than otherwise would have been the case. Conferences and committee meetings multiplied, and records, which must be kept, became more and more voluminous.



COURSEN B. CONKLIN, M.D.

Under these circumstances it would not have been surprising if Dr. Conklin, having wearied of his duties, had washed his hands of the organization. Instead, he gave his best to his assignment and despite many vicissitudes maintained a never wavering interest in the Society. In 1943 he was elected delegate to the American Medical Association, a post which he held until the first of this year.

Aside from his positions of trust and importance in the Society, Dr. Conklin has had a distinguished professional career. Until recently he was Clinical Professor of Medicine at George Washington University School of Medicine. Much might be said about his career as a medical educator and the honors which have been conferred upon him by scientific bodies. Last fall, for example, he was Vice Chairman of the Section on Pediatrics of the Southern Medical Association. But that is not the purpose of these comments. Their purpose is to record the fact that in good times as well as bad he never failed the medical organization with which his name is so closely associated. On the contrary, he was a devoted and able officer to whom the medical profession is deeply indebted.

Lest this sound like a "swan song," let it be emphasized that Dr. Conklin is in full vigor and still has much of value to contribute to the Society.

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Wanted: the Rounded Man

Whenever the shortage of doctors is discussed one can be quite sure there will be differences of opinion. However, on one point there is no disagreement, that is, that quality is far more important than quantity.

Our medical schools are doing a superior job in training physicians, therefore the selection of students is a vital factor. Unfortunately, no completely satisfactory method of selection has been devised nor is there likely to be one in the very near future. This was the conclusion reached by a group of medical educators who explored the situation at the annual meeting of the Association of American Medical Colleges last November. In reporting on the deliberations of the group its chairman, Dr. Carlyle Jacobsen, said:

> "I believe there was uniform agreement that the academic record, for all of its weaknesses, was still the best single criterion and the best single guide that we might have in the choice of a competent student. Likewise, it was agreed and emphasized that the appraisal of this academic record should always be flexible, at least flexible enough to permit evaluating special circumstances, such as the illness of the student.
>
> "Another matter was the slow start that some students make. Was it better to say, 'Well, here's a chap who is in his Junior year, and he has really gotten going now, and let's forget the first two years.' How could we work in some,—I would not say academic credit for extracurricular activity, but at least give it some weight in evaluating the quality and character of the academic record that is presented. By and large, there was a feeling that out of the academic record we wanted to show that the student had a certain minimal competency to carry on work of an intellectual character, and that beyond establishing that minimum, we perhaps should not be too concerned as to whether the student was a B+, a B−, an A or even a C student, if he demonstrated the qualities necessary to carry on such academic study."

Dr. Jacobsen states, however, that when the academic record was under discussion participants emphasized again and again that what was sought was the "rounded man."

> "There were varying ways," he said, "of describing this individual, but obviously it was not a dullard who was wanted, but somebody who was interested in affairs of life, as well as the pure intellectual activity. Therefore, we came to a discussion of what we finally called these 'intangibles.' Then, the question arose, 'How do you identify these intangibles?' There was quite a bit of sentiment in favor of having an interview in order to appraise some factors about the individual that were not reflected in the college record or in the medical college admissions test, but there was not uniform agreement on that point."

There followed considerable discussion of the manner in which these "intangibles" could be determined. One of these was the interview, and here is what they had to say about it:

> "Some individuals said they had a man-to-man interview; that is, one interviewer, one student. Others followed the category of what we came to characterize as 'three against one,' three faculty members to one student. Others made it three against three. Sometimes it was man-to-man, three times over. Each one was relatively confident that what they were doing in their school was probably the best way to handle the interview, although there is always an 'around the corner question,' 'Let's see what the other fellow is doing.'
>
> "Another facet of the interview related to how much information should the interviewer have about the student before he sees him. There was a range all the way from having complete information about the student,

studying his record in its entirety, and using the interview to amplify and to evaluate some of the data that the student had already supplied; and at the other extreme, there were schools that said, 'Well, we do not believe that the interviewer should have any information about the student beyond his name and that he would like to come to medical school.' Again, you face the question of, 'Are you trying to make independent judgments in an interview, or are you merely seeking to augment information that is already at hand?' "

There was no general agreement as to what might be expected from an interview. Some doubt was expressed that final judgment as to how the individual would behave in a real life situation was warranted on the basis of an interview of 15 minutes, or even three hours. However, it was agreed that further study of the interview method was warranted.

Letters of recommendation were looked upon with skepticism. While it was granted there were "good letters" the reliability of even these was questioned.

There were varying opinions expressed as to the value of college admissions tests, it being the consensus that they might be used as a "minimal hurdle for admission."

While the best method of discovering the "rounded man" was not resolved, the exploratory discussion should serve to stimulate thought on this very important problem.

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A G. P. Speaks One of the dangers inherent in a materialistic society such as ours is that in an effort to secure creature comforts the people forsake ideals which in the long run are more essential to their happiness and well being than worldly goods. Whether they like it or not, doctors cannot escape this situation. They, too, are part of a highly competitive society which measures success in dollars. However, they are also engaged in a pursuit which is best described as a high calling. That is something doctors must never permit themselves to forget.

Dr. Steve P. Kenyon of Dawson, Georgia, spoke plainly on this subject in the Chairman's Address before the Section on General Practice of the Southern Medical Association last November. Dr. Kenyon said:

"We need an old time revival in which we can reaffirm our faith in the oft-forgotten creed of service. We need to acknowledge again the priceless heritage that is ours as American physicians and accept the responsibility of upholding the tenets and creeds that are as fundamental to the survival of medicine as the Constitution is to our Union of States and the Ten Commandments to the Christian religon.

"It seems to me that if we are to survive as democratic doctors in a democratic country we must preserve our place in the hearts and minds of our people. In furtherance of that goal, I am bringing to your attention what I believe to be some of our responsibilities to our people:

"(1) From the beginning of time the most important factor in the building of any structure is a firm foundation. So it is in molding a man into a good physician. He must have a high moral character; he must be honest with himself and with his patients. How truly Shakespeare wrote when he said: 'To thine own self be true and it must follow as the night the day thou canst not then be false to any man.' To my sorrow I have known three doctors who were dishonest. They were brilliant mentally; they had good personalities and they were good students; yet they not only brought dishonor to our profession, but wreck and ruin to their families and themselves. I believe the credentials committees of our medical schools should be most concerned and most careful about the character of every applicant to their institutions.

"(2) The Bible speaks of 'The Beloved Physician.' He was a Christian, and if my knowledge of medical history serves me right the great physicians of the world put their faith in our Lord. How wonderful it has been to know personally some who prayed before every operation, and some who, when their medical knowledge and scientific wisdom failed to save the life of a patient, prayed to the Lord for guidance and direction. If I were the desperately ill patient, I would prefer that my physician believed in the instrumentality of prayer. In speaking of 'My Faith,' J. R. Killian, Jr., President of the Massachusetts Institute of Technology, said: 'The good life rests upon a working partnership between science and religion.' He said further:

" 'My conviction also deepens that the understanding of good and evil, the attainment of wisdom by individuals and societies, is impossible without a lofty sense

IMPORTANT NOTICE

Announcements of meetings and news items for publication in the MEDICAL ANNALS must be in the Editorial Offices, 1718 M Street, N.W., on or before the 10th of the month preceding the issue in which they will appear. This means that in order to receive advance publicity announcements must be submitted a month to six weeks in advance. With the coöperation of the Society's membership the Editorial Board hopes to advance the delivery date of the ANNALS to the middle of the month.

of the meaning of life and that this lofty sense is achieved only through combining an understanding of nature with an appreciation of what men call God.'

"(3) Another prerequisite of a good physician is the ardent belief in the responsibility of citizenship. The title M.D. does not make null and void one's duty to his community, to his state, or to his nation. On the contrary, the confidence in which he is held by the public eminently qualifies him to be a leader in the progressive and worthwhile undertakings of his people. Such a man is needed in the civic club, in the school, in the local government, and in the church.

"(4) It is my sincere belief that every holder of the degree of doctor of medicine should esteem it a privilege to affiliate with organized medicine in all its phases, from the county medical society to fellowhip in the American Medical Association.

"(5) When we study the lives of the great men of medicine, we find that among their outstanding traits of character was their unerring custom of living ethically with their fellow doctors. Much of the abuse of doctors and many of the lawsuits against them were originated by the vicious criticisms, or insidious slurs of some other doctor. Ethics of medicine is simply the Golden Rule of Medicine, and it is one code that we should never betray. If we cannot speak in complimentary terms of our confreres in medicine, then we should hold our tongues. Some call it tolerance, but Paul in writing to the Corinthians called it charity. How truly he wrote when he said:

" 'Though I speak with the tongues of men and of angels, and have not charity, I am become as sounding brass or a tinkling cymbal.'

"(6) Another responsibility of the successful doctor to his people is his duty to continue to study, to live with books, particularly medical books, and to take postgraduate courses regularly and systematically. Osler reached the peak of medical excellence in three countries and his words of wisdom have been a constant stimulus to most doctors. In one of his addresses he said:

" 'Medicine is a most difficult art to acquire. All the college can do is to teach the student principles, based on facts of science, and give him good methods of work.'

"The art of medicine is learned at the bedside of the patient, in medical libraries and in postgraduate classes and clinics. Osler again said:

" 'To study the phenomena of disease without books is to sail an uncharted sea, while to study books without patients is not to go to sea at all.' He speaks of 'the quinquennial brain dusting, at the hospital and laboratory, for renovation, rehabilitation, rejuvenation, reintegration, resuscitation.' The doctor of the future who has not time for study and refresher courses is squandering his inheritance and abetting the cause of socialistic medicine.

"(7) We come now to the most important phase in the doctor's life, the one that really tests the temper of his mind, heart and soul and the one which makes or breaks him as a successful physician in the judgment of his patients. This quality which distinguishes the good from the bad, the false from the real and the artless from the medical artist, is the manifestation of an honest and sincere attitude and interest in the personal contacts with his patients. This essential characteristic of the successful physician may be expressed in many ways. The patient presents himself to the doctor because he is in trouble and needs help of some kind. It is the doctor's responsibility to take a personal interest in his problems and to give him sympathetic understanding. One of the great teachers of American medicine, Stewart Roberts, whom many of you remember as president of the Southern Medical Association, expressed this thought beautifully as follows:

" 'It is a noble company of men and women who will touch the garments of your clinical power and breathe more than you can know the air of your character and personality. More than any other group of men, we see mankind in the average and from within outward. And we may thank God that we are neither critic nor priest, neither judge nor jury, neither financier nor officeholder, but friend of man and in a measure holder of the keys of health and life.' "

Doctors must hold fast to their ideals. Neither they nor the people they serve can afford to dispense with them.

T. W.

THE CARE OF HAND INJURIES*

V. Fractures and Dislocations

I. Protection of the Hand (Abstract of Article I, published in July 1948)

The first-aid care of wounds of the hand is directed fundamentally at protection. It should provide protection from infection, from added injury, and from future disability and deformity. The best first-aid management consists in the application of a sterile protective dressing, a firm compression bandage and immobilization by splinting in the position of function.† No attempt should be made to examine, cleanse or treat the wound until operating-room facilities are available.

II. Requirements of Early Definitive Treatment (Abstract of Article II, published in November 1948)

Early definitive care requires thorough evaluation of the injury with respect to its cause, time of occurrence, status as regards infection, nature of first-aid treatment, and appraisal of structural damage. For undertaking definitive treatment the conditions required are a well-equipped operating room, good lighting, adequate instruments, sufficient assistance, complete anesthesia, and a bloodless field. Treatment itself consists of aseptic cleansing of the wound, removal of devitalized tissue and foreign material (exercising strict conservation of all viable tissue), complete hemostasis, the repair of injured structures, protecting nerves, bones and tendons and providing maximum skin coverage and the application of firm protective dressing to maintain the optimum position. After-treatment consists of protection, rest and elevation during healing, and early restoration of function by directed active motion.

III. Surface Injuries (see June 1949 issue)

IV. Lacerated Wounds (see October 1949 issue)

V. Fractures and Dislocations

The purposes of treatment of closed fractures and dislocations of the bones of the hand are:

1. Protection of the injured bony structures from further displacement and avoidance of added damage to soft parts.
2. Restoration of normal relations of the bony structures.
3. Maintenance of the corrected relation of the bones to permit healing, at the same time avoiding stiffening in position of nonfunction.
4. Restoration of function.

These objectives are sought in the various stages of treatment:

1. First-aid treatment
    - A. Avoid manipulation or attempts at reduction until skilled attention is available and accurate diagnosis has been made.
    - B. Prompt protection of the hand by complete immobilization in the position of function pending definitive treatment.
2. Definitive treatment

    When proper skill and facilities are available, this consists of:

    - A. Diagnosis by means of
        1. Inspection to determine swelling, ecchymosis, deformity, loss of function.
        2. Palpation, gently employed, to discover bony irregularity, point of maximum tenderness, referred pain. This sign is of importance in discovering fractures of the long bones, particularly when deformity may not exist or is concealed by swelling. Gentle pressure in the line of axis of the long bone will result in pain at the fracture site.
        3. X-ray examination is obligatory when fracture or dislocation is suspected. Injuries in the region of the carpus require not only anteroposterior and lateral views but 2 or more oblique views in addition. Fractures of the carpal bones frequently fail to show in anteroposterior and lateral views.
    - B. Reduction. Restoration of normal position of bony structures should be secured at the earliest possible time by:
        1. Manipulation

            Whether reducing a fracture or a dislocation, full relaxation, preferably under general anesthesia, is desirable. Manual traction, pressure and moulding should be gentle and deliberate to avoid further soft-part injury.

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* This is the fifth of a series of articles on the Care of Hand Injuries. This material is prepared by the American Society for Surgery of the Hand and is distributed by the Committee on Trauma, American College of Surgeons, through its Regional Committees.

† Position of function or position of grasp: wrist hyperextended in cock-up position, fingers in mid-flexion and separated, thumb abducted, slightly forward from hand and slightly flexed.

When attempts at reduction by manipulation are not promptly successful under these conditions, they should be abandoned in favor of open (operative) replacement. Dislocation at the metacarpophalangeal joint of the thumb will almost invariably require open reduction.

2. Skeletal control

To maintain reduction, particularly of oblique or comminuted fractures of phalanges or metacarpals or fractures into joints, control by skeletal fixation may be required. This may be applied by means of a length of thin Kirschner wire inserted transversely through the distal end of the fractured bone or through the terminal phalanx of the finger. The hand and injured finger or fingers should be supported in the position of function on a palmar moulded curved form or ball splint. This alone will ordinarily suffice to maintain proper position after reduction by manipulation. When control by skeletal fixation is required for maintenance of reduction, the transfixing wire may be connected to this splint on its palmar aspect or to a projecting frame, at or above wrist level, by elastic bands. Fixation or traction by means of a hole in the finger nail, or by adhesive applied to the finger, or by woven constricting device is not satisfactory. Continued straight traction on the fingers in the extended position is to be avoided.

3. Open reduction

When manipulation fails to produce satisfactory reduction, open operative reduction is to be employed. This requires careful preliminary skin preparation and should be carried out under optimum operating conditions as described in II (Requirements of Early Definitive Treatment).

3. Maintenance of reduction

Immobilization of bony injury following reduction should:

(a) Be secured with firm, even pressure bandaging, permitting no motion at the site of injury.
(b) Be nonconstricting, not interfering with circulation.
(c) Be comfortable, causing no excess pressure.
(d) Preserve, as far as possible, the position of function, taking into account the normal concavities of the palmar surface of the skeletal structure (arches of the hand) and flexor surface curves of the phalanges (wrist in 30° dorsiflexion, metacarpophalangeal and distal interphalangeal joints in 45° flexion and middle interphalangeal joint in 90° flexion). Flat splinting is to be condemned.
(e) Leave free to move all joints whose motion will not jeopardize position and healing. During immobilization, active motion of all joints not necessarily confined is to be encouraged.

Immobilization may be accomplished by:

(1) Splinting or plaster casting, applied as described in 2-B (Reduction).
(2) Internal fixation. Kirschner wires may be employed, following either open or closed reduction, as axial intramedullary splints for individual long bones (not to protrude into a joint); as transversely introduced fixation pins passing through adjacent bones to secure the fragments of metacarpal fractures; as penetrating fixation for fragments of carpal fractures.

Wiring or plating of fractures of the bones of the hand is generally unsatisfactory.

During the early period of immobilization, elevation of the hand is desirable. Immobilization of the injury should be consistent and continuous until healing and firm union have been established.

Healing of ligamentous injuries accompanying dislocations requires 2 weeks of immobilization following reduction.

Healing of fractures of the long bones requires immobilization for 3 to 5 weeks.

(*Continued on page 177*)

NOTE ON THE NATURE OF IMMUNITY IN POLIOMYELITIS

L. P. SHIPPEN, M.D.

Washington

The subclinical attacks that afford immunity to polio are so mild that they are comparable to vaccination, and absence of the disease in many densely populated cities, except for rare, sporadic cases, also suggests the type of protection given by a vaccine against contagion, as in smallpox. Nor is there any significant variation in the incidence of polio in crowded slum and open country, as if both town and country were equally protected by some unknown factor resembling a vaccine in its action. Some unusual element modifies the usual course of a contagious disease and a clue to its nature is given by the peculiar relation which hygiene bears to the infection.

Epidemics started at about the time sanitation was introduced and, now, are at their worst where sanitation is at its best.[1] In this country they are numerous and severe, but in crowded Chinese cities where lack of hygienic conditions greatly favor the transmission of contagious diseases, few, if any, definite paralytic symptoms are noted amongst the native Chinese. Many of the children are half-starved, ill-protected from exposure, and exhausted from overwork, all factors predisposing to severe symptoms. A deadly strain of virus is present which caused a high incidence of paralysis in American troops that were stationed in China, yet only an occasional, sporadic case is seen in the general population.

Since it is the incidence of immunity to polio and not the infection that runs parallel to the incidence of disease under insanitary conditions, the immunity may be conveyed as are diseases due to lack of sanitation, by polluted water and food. If the relation between hygiene and polio means what it seems to mean, immunity to polio and intestinal infections are transmitted in China by the same agent, human feces.

In spite of the implied contradiction, this relation is not opposed to the present theory of the nature of immunity in polio, since the polio virus is found in stools and in water, food and flies contaminated by this material and, therefore, could produce subclinical attacks through these agents. Proof to the contrary rests on the fact that paralytic polio is not a food- and water-borne infection, but absence of paralytic symptoms is no indication that the subclinical form is not present—quite the reverse. The fact that the polio virus does not cause paralysis when transmitted by food and water in itself indicates that these agents are especially well fitted to convey the unrecognized infections that are largely responsible for immunity to polio.

Certainly, in order to immunize an entire nation without any evidence of disease an organism whose chief characteristic is ability to paralyze would have to first lose its virulence, and the fecal strains in food and water have lost this property temporarily but retain other biologic functions, else they could not be recognized after isolation. They have become attenuated by exposure to unfavorable conditions outside the body and are unable to cause paralysis upon return to the human system, because immunity is produced by the virus before it regains its pathogenicity. It acts as a vaccine in a similar manner to rabies vaccine.

The fecal strains of the polio virus in China could do a more universal job of vaccination than any health department, because the Chinese use human feces for manure. Since it is everywhere, in food, water and dust, the vast majority of the population consumes a considerable amount throughout life and are infected continuously by these strains from early infancy on.

In addition, confirmatory evidence of the relation between human feces and immunity to polio is given by its incidence in the first epidemics following the introduction of sanitation. When these occur, the 1- to 5-year olds are almost exclusively affected, and it is only in this group that any great number have escaped infection by fecal organisms. However, widespread immunity where filth diseases are rare must be due mainly to other factors. But, the underlying principle should hold that when no recognizable symptoms accompany widespread immunization by living organisms, weak strains, not virulent ones, are involved.

Rabies vaccine is an example of this type of protection against disease by a living virus. A virulent strain is made more so in order to shorten the incubation period and then it is dried under standard conditions to render the organism harmless, the degree of attenuation varying with the time dried.

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[1] Sabin, A. B.: J.A.M.A., 1947, **134,** 749.

Therefore, other organisms may react in a similar manner and polio immunity be due in part to infection by strains of virus that have been attenuated by drying in the home. Transferred by the hands of carriers from stools to toys and eating utensils, the virus would dry rapidly in winter when the humidity is very low in dwellings and the likelihood of any but immunizing, subclinical attacks is small. Later on things dry slowly because of higher humidity, and the chance of infection by virulent strains is increased. The seasonal incidence in countries where sanitation is good and epidemics occur may be compared to the results following the improper use of two preparations of rabies virus, the first, dried 13 days, the second, only 1.

Various types of immunity, not usually connected with contagious diseases, must be present in polio to account for the peculiarities of its incidence. Carriers do not always even appear to have the antibodies that result from subclinical attacks. Something else saves them from the virulence of their own strains, and in addition to protection by attenuated strains 2 forms of natural immunity are well known, 1 due to infection by related organisms, and the other to the presence of unrelated organisms and glandular secretions.

Immunity to polio may be like immunity to smallpox, which formerly was produced in 3 ways: by a previous attack, by inoculation with attenuated strains from the lesions, and by accidental contact with the virus of cowpox on the udders of cows. Unrecognized strains of the polio virus in household animals, the dog, for instance, may have the same relation to polio that cowpox virus does to smallpox. The lack of antibodies in some carriers would be understandable, if, in some cases, immunity were due to the same type of mechanism that protects susceptible animals from the spores of B. botulinus.

MEMBERSHIP

The following applicants for membership were duly elected to membership at the meeting of the Executive Board, January 30, 1950, in accord with Amendment XI, Section 2, of the Constitution and By-laws of the Society:

Active Members

Thomas E. Curtin, 1813-23rd Street, S. E.
J. DeWitt Fox, 6856 Eastern Avenue, N.W.
Robert B. Irey, 1833 Monroe Street, N.W.
Paul Kaufman, Children's Hospital
John A. Kneipp, Georgetown University Hospital
Enos Ray, 1801 K Street, N.W.
Paul A. Reed, Gallinger Municipal Hospital
George D. Selby, 1801 K Street, N. W.
A. Earl Vivino, 2633-16th Street, N. W.
Keene M. Wallace, 5608 Overlea Road
Carl H. Wells, 5529 Manning Drive, Bethesda, Md.
Roy E. Whitehead, 621 East Thornapple Street, Chevy Chase, Md.
Oliver P. Winslow, 7501 Central Avenue, Takoma Park, Md.

Associate Members

W. L. Etienne, 4713 Berwyn Road, Berwyn, Md.
Adrian Recinos, Jr., 3726 Connecticut Avenue, N.W.
F. Turner Reuter, 3011 Chestnut Street, Erie, Penna.
June Carol Shafer, 1007 N. Highland Street, Arlington, Va.
Meyer Robert Shear, 3200 Chillum Rd., Mt. Rainier, Md.
Susan P. Souther, 207 Audrey Lane, Congress Heights Station, D. C.

The following applicants for membership will be voted on at the meeting of the Executive Board, April 24, 1950:

For Active Membership

Virginia Patterson Beelar, University of Oregon—1936.
Abraham W. Danish, George Washington University—1941
Cornelius P. Frey, Johns Hopkins University—1943
Walcutt W. Gibson, College of Medical Evangelists—1940
James Roy Goodson, Temple University—1942
Charles F. Kincheloe, University of Virginia—1931
Lorman L. Levinson, University of Maryland—1941
Ernst Trier Morch, University of Copenhagen(Denmark)—1935
William E. Nessell, George Washington University—1945
P. Joseph Pesare, Georgetown University—1946
Anna Coyne Todd, University of Wisconsin—1932
Karl F. Welte, Berlin University (Germany)—1932
Rowland F. Wilkinson, College of Medical Evangelists—1942

For Associate Membership

Thomas A. Haedicke, Wayne University—1943
Raymond A. Lawn, University of Minnesota—1937

For Affiliate Membership

Oscar Lavine, George Washington University—1930

Our Living Past Presidents

CHARLES STANLEY WHITE, M.D., D. Sc., F.A.C.S., President, 1927

Dr. Charles Stanley White is a native Washingtonian, born in this city on July 1, 1877, the son of George White and Adelaide Harris White. His entire life has been completely identified with his native city. He was educated in its public schools and studied medicine at the George Washington University School of Medicine, from which he graduated in 1898. His internship was at the George Washington University Hospital (1898–99), and at the Columbia Hospital (1899–1901). In 1903 he was appointed Resident in Surgery at Emergency Hospital and continued in that position until 1908. It was there, during a rich and varied surgical and administrative experience, that he laid the foundation for his great success of future years.

Early in his medical career Dr. White began to contribute to medical literature. His first paper, entitled "Remarks on Bacteriology and Serum Treatment of Puerperal Septicemia, with an Illustrative Case," was published in the *Medical Record* in 1903. From that time, up to and including 1949, scarcely a year passed without one to five published papers on medical subjects. His writings cover the entire field of general surgery and have not only been important contributions to medical knowledge, but serve to emphasize Dr. White's consistent and sustained interest in medical science, an interest which shows no sign of abatement after more than fifty years in medical practice.

Dr. White has been a teacher of medicine almost from the time of his graduation from medical school. At the beginning he was interested in physiology and studied that subject in a graduate course at Harvard Medical School. He began his teaching career as an assistant in the Department of Physiology in the George

Washington University School of Medicine in 1901. From that time until his retirement from the faculty in 1948 he was continuously a teacher in the George Washington University, advancing through various positions in the Department of Surgery until he became Professor of Surgery and Head of the Department in 1930. He continued in that post until his retirement in 1948. His University honored him by awarding to him the honorary degree of Doctor of Science in 1946, and in the same year appointed him a member of the Board of Trustees. During all of these years of teaching and carrying on an active surgical practice of great volume he also served at various times as Head of the Department of Surgery of Gallinger Municipal Hospital, and as Consulting Surgeon to the United States Naval Hospital and St. Elizabeths Hospital. He was on the staffs of Emergency, Garfield, and Columbia Hospitals, and during the first World War organized a Naval Medical Unit and served in the Naval Reserve as a Lieutenant Commander.

It was inevitable that a surgeon of Dr. White's energy and ability would take a place of leadership in both local and national medical organizations. He is a Fellow of the American Medical Association; Founder Member, Fellow, and past Governor of the American College of Surgeons; Founder Member and diplomate of the American Board of Surgery; Regent of the International College of Surgeons; and Past President of the George Washington University Medical Society and the Medical Society of the District of Columbia. He served in the latter office in 1927 and during that time made two outstanding contributions of great value to the Society and to the progress of medicine in this community. The first was a recommendation which has greatly facilitated the Society's business. It consisted in the adoption of provisions in the Constitution which transferred the details of administration of the Society's affairs from the general meetings to an executive committee. The second was a recommendation which resulted in establishment of the Society's Annual Scientific Assembly, which is now an important and stimulating yearly event in the medical life of Washington.

Dr. White, in the late nineteen thirties, had reached the zenith of an unusually successful career. As a practicing surgeon he had attained a success far beyond that granted to most men; as a teacher he had reached the post of professor and head of the department of surgery in his alma mater; and as a contributor to medical literature and leader in medical organization he occupied a place of national importance. With such attainments most men would rest content. At that time, however, Dr. White became the leader in a project fraught with great responsibility and with many attendant risks. He demonstrated that the spirit of the pioneer is not a matter of age but an inherent quality of personality. The conception and construction of the Doctors Hospital and the group of medical buildings surrounding it was a real pioneering venture. After more than ten years and in spite of the construction of two other large modern hospitals in this city, Doctors Hospital is constantly filled to capacity, and has adequately demonstrated its financial stability; these facts are sufficient proof of the need of such an institution and of the soundness of the vision and planning which made it possible. Dr. White continues today not only as the active chief of surgical service in Doctors Hospital, but as active head of the Board of Directors of the Corporations which are necessary for operation of the various units of the Doctors Hospital Medical Center. He is fortunate and happy to have associated with him his son, Dr. Charles Stanley White, Jr., a well trained surgeon.

Dr. White has been as happy and fortunate in his family life as in his profession. Married in 1914 to Blanche M. Strong of Minnesota, who has been his true helpmeet through the years, he has, besides his son who is associated with him, a daughter, Mrs. Mary Alice Kimball, of White Plains, New York.

This article is not designed to be an evaluation of Dr. White's career, but is more in the nature of a tribute of respect and affection from his colleagues, who have the most intimate knowledge of his ability and achievements, given while he is in full health and vigor to receive it. Final evaluation will come only when his work is finished, which we hope will be many years hence. One cannot refrain, however, from attempting some estimate of the qualities which have contributed to Dr. White's extraordinarily successful career. His kindly consideration of his patients and medical colleagues is known to all, but to fully appreciate his attractive personality, his humor, and faculty of adjusting himself to all sorts of men and circumstances, one would need to have the delightful experience enjoyed by this writer of several fishing trips for trout and salmon on the lakes and streams of northern Maine. His integrity of character and courage in difficult situations

(*Continued on page 178*)

REPORT OF DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION*

The Clinical Session of the House of Delegates of the American Medical Association was held in Washington, D. C., December 6, 7 and 8, 1949.

Of interest to the practicing physician was the matter of dues which, by change in the By-laws, were authorized to a maximum of $25.00 per year for each member. The Board of Trustees later announced that the dues for 1950 would be set at $25.00.

The report of the progress in public education, which was financed by an assessment of $25.00 of each member last year, showed definitely that the public throughout the United States and its territories has become cognizant largely of the failure of socialized medicine in England; there are many evidences that sentiment is such that the immediate socialization of medicine in this country is unlikely to occur.

Announcement was made that for the year 1950 the emphasis would be shifted from the "negative" phase—opposing socialized medicine—to the "positive" phase—furthering the solution of medico-economic problems. Specific support would be given to the spread of voluntary health coverage.

The report of the Hess Committee (Special Committee on Hospitals and the Practice of Medicine), which was adopted at the Atlantic City Session, 1949, was brought back by the Board of Trustees on advice of counsel. In its original report, the Hess Committee recommended that all complaints relative to hospitals alleged to be guilty of the practice of medicine be investigated by the Judicial Council if local adjustment could not be made. In the event of an adverse opinion by the Council, it could order withdrawal of approval of the institution. At this session it was ordered that the Hess Committee be reactivated to examine the legal background involved; and that no action be taken until after the Committee shall make its report at the San Francisco Session.

Action was taken to enlarge the staff of the Washington Office of the American Medical Association in order to maintain a more rapid flow of information to the states about bills pending before Congress pertaining to health, and in order that expert medical opinion be made available rapidly to the Congress. The office of the AMA in Washington will move its quarters on March 1, 1950 from 1302-18th Street, N.W. to a suite of rooms at 1523 L Street, N.W. (in the immediate vicinity of the Hotel Statler).

Hygeia, first published in 1923, has had its name changed to *Today's Health*. Its new editor is Dr. W. W. Bauer.

The recipient of the award of "General Practitioner of the Year" was Dr. Andy Hall of Mt. Vernon, Illinois.

Adopted by the House were revised essentials for an:

Acceptable School of Occupational Therapy
Acceptable School of Physical Therapy
Acceptable School for Medical Technologists
Acceptable School for Medical Record Librarians.

Honorary Fellowship in the American Medical Association was conferred upon Dr. Luis Francisco Thomen, Ambassador of the Dominican Republic, upon recommendation of the District of Columbia delegation.

The twenty principles for approval of lay-sponsored health plans adopted at Atlantic City received two minor amendments, one requiring approval by the state and county societies involved, and the other basing analysis on at least one year's past performance of the plan.

A resolution was passed creating a Committee of the House on Chronic Disease: "(1) to keep constantly in touch with the U. S. P. H. S. and all other government agencies functioning in the chronic disease field and act as liaison between the A.M.A. and the U.S.P.H.S.; (2) to develop and submit to the House a proposed basic public policy in the matter of chronic disease or any extension of public health functions, and (3) to report its progress to each session of this House."†

Resolutions were adopted setting up the mechanics of a Junior American Medical Association for residents and internes.

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* This is a brief summary of the report given before a special meeting of the Society, February 1, 1950. For complete proceedings of the House of Delegates, see J.A.M.A., 1949, **141,** 1159–74, 1239–49 and 1303–8 (December 17, 24 and 31 issues). Official reports not included in the minutes of the Session were published in the Delegates' Handbook.

† Subsequently Dr. Robertson Ward of San Francisco, California, was appointed chairman of this committee and Dr. Herbert P. Ramsey, Washington, D. C., one of its members.

The Section on Obstetrics and Gynecology was made an affiliate of the National Federation of Obstetric-Gynecologic Societies.

Resolutions were adopted urging the organization of grievance committees in all state and county societies.

Criticism of government inaction in civil defense was expressed.‡

The erection of a new and safe building for the Surgeon-General's Library was urged upon the Army.

COURSEN B. CONKLIN, M.D.
HERBERT P. RAMSEY, M.D.
Delegates

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‡ See editorial in February issue, page 92.

MEETINGS

Wednesday, April 12

The program will be furnished by the *Section on Neurology and Psychiatry*. Speakers and subjects to be announced.

Wednesday, April 26

The program will be sponsored by the *American Cancer Society*. Speakers and subjects to be announced.

CORRESPONDENCE

WASHINGTON, D.C., February 3, 1950
DR. WALLACE M. YATER, EDITOR
MEDICAL ANNALS OF THE DISTRICT OF COLUMBIA
WASHINGTON 6, D. C.

DEAR DR. YATER:

I read with a great deal of interest your recent editorial on newspapers and youngsters in the *Medical Annals of the District of Columbia*. You have so adequately expressed the thoughts which I have had so frequently with regard to this rather tragic situation. I believe that our Society would be doing our children in our community at large a great service if we could in our own way foster a campaign to urge newspapers to give less prominence and emphasis on those bits of news which, as you say, "might affect adversely the youth of our Nation."

With warm personal regards,

Yours sincerely,
R. LOMAX WELLS, M.D.
Medical Director, The Chesapeake and Potomac Telephone Companies

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WASHINGTON, D.C., February 2, 1950
MR. THEODORE WIPRUD, SECRETARY
MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA
WASHINGTON, D. C.

DEAR MR. WIPRUD:

I have read with interest your editorial in the latest (January) issue of *Medical Annals*. I am glad to know that you have been greatly disturbed by the front page headline articles on crime in Washington. It is high time that the citizens of this community got disturbed. They ought to get disturbed about the amount of crime in the city and not about the headlines reporting the crime. I hope that the generous display of this crime news will finally awaken you and others in the community to the fact that we live in one of the most lawless cities in the world. There are more armed assaults committed annually in Washington than in any other city in America.

These crime stories do not make pleasant reading for either adults or children. I know it is more pleasant and agreeable to sweep the ugly facts of existence under the carpet or hide them in the closet. It is not, however, the sole function of the news columns to give pleasure or entertainment. It is their duty to convey to readers an honest portrait of the face of the age.

Newspaper editors have just as many children as doctors do, and are just as concerned about their emotional welfare. It is not a mischievous and irresponsible desire to give readers "a kick" that prompts them to print crime news. They construe it to be their duty to tell the adults of the community the facts about the city in which we live in the hope that citizens may take some action to make the society of tomorrow physically, as well as emotionally, safe.

We can keep crime news out of the newspapers by keeping crime out of the community. That we will never do by withholding from the public the knowledge that crimes are being committed. Undoubtedly, there is a risk that young people may read, in news columns, matter that is emotionally disturbing to them. It is, our opinion, a lesser risk than the risk that their elders, because of their ignorance of the underworld's threat to the safety of our society, will permit their children to grow up in a world where they are in danger of physical, as well as emotional, disaster.

Sincerely yours,
J. R. WIGGINS
Managing Editor,
The Washington Post

THE DOCTOR'S CREED

An Address to Medical Students*†

GEOFFREY FISHER, P.C., M.A., D.D.

Archbishop of Canterbury

For a fully effective life, a man must have a firm, truthful, adequate belief about life. Normally a man may, if he likes, borrow it at second hand from the conventional doctrine of his generation. Today he cannot; for there *is* no established, conventional, generally accepted doctrine of life. Truth is fragmented: each science cultivates its own plot and is a law to itself and a mystery to everyone else. Man is fragmented: the economic man, the industrial man, and the like. Life is frustrated: for there is no unity of faith and purpose about it. All of us today are compelled, if we think at all, to make a deliberate and intelligent choice. For a man, to choose none is to be a nihilist. Each man, therefore, must work for his belief, and not least the medical profession; for its members are accepted and trusted as guides and advisers in much more than matters of health. They touch men's lives at many sensitive points. If priests in their own craft, they are pastors too, and they must have a clear, surely based, doctrine of life behind them.

Against this background—may I venture to raise certain fundamental questions, closely related to aspects of the medical profession?

Three Questions

The pursuit of scientific truth, in which you are trained, is a grand, exciting, exacting, and splendid discipline indeed. There is the acquisition of exact and precise knowledge by observation, experiment, the inspired guess, even by accident. There is the testing of it by applying it and seeing what trial and error teach you. And then out of it come fresh problems, fresh study, and more truth. That is all magnificent and enthralling. On all this I want to make three obvious observations, which because they are obvious are the more easily overlooked.

1. Scientific truth is discovered, not created by you. It was there before you found it in the universe, whether it be the truth of nuclear energy or of penicillin. What you do is not to create truth, but to find it and use it. From the beginning of time it was there awaiting your discovery—and not only scientific truth, but the laws of reason and principles of intelligence on which it rests. How did it get there? If that be a mystery, it is not one that we can ignore. There are three possibilities. It got there by accident, which means that Chaos is King; it got there by an inherent necessity, which is another way of saying that we do not know; or it got there by the deliberate act of a Mind which put it there, in which case we recognize an affinity between that mind and ours. It is in Creation—how? There is a metaphysical question.

2. Pure science is concerned only with truth and error. But as soon as you put it to use, it involves you in good and evil, and moral values. Pure science produced the atom bomb. That bomb has shaken Japan and mankind. Even more it has shaken the scientists; for the thing can be used and its use raises moral questions which men cannot avoid. Science cannot be a law to itself: it demands to be subject to a moral control of its uses. Medical science is constantly and increasingly involved in moral problems. Once it was the simple problem of healing disease. But what of—to give one instance only—what of artificial human insemination—with all the complex questions attached to it of personal and family and social well-being? It is no longer possible to rest quietly in the simple belief that what science or medical science can do, it may do.

Science, or rather the use made of it, must be subject to the moral judgment; unless, of course, you like to say there is no such thing as a moral judgment. In which case I reply (a) you deny the experience of mankind that there is; (b) you don't believe it yourself; for there are some things you could not bring yourself to do because they are wrong. But if there is a moral judgment—then, since it is to control life, it deserves study and care as thorough as science itself, and not an unscientific, haphazard, and amateur guess. There is an ethical question.

3. Both science and the moral judgment are pos-

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* Substance of an address delivered in opening the new session of the University Medical School at Birmingham on October 4, 1949.

† Reprinted from *The Lancet*, October 29, 1949.

sessions of Man. Man is greater than the things he possesses, prior in thought to them and superior in essence. What is Man that medical science should serve him? Unless you have a working answer to that—your work will be in the strict sense of the word faithless and futile. And if it is a mystery, all the more reason for seeking the truth of it.

You see and deal with man as a physical body. But you are never unaware that he is something more. What more? How much more? You are all compelled, as any pastor is, to be something of a psychologist. What does a man's *ψυχή* make him? In the end an ego, a person, or an *Id*—that thing. And if an ego, a person—how far does that take him (and you, for you too are a man) in terms of moral value and of the purpose of his creation? There is a personal problem.

Well, there are three problems or mysteries. Is creation an accident or a design, and if a design, can we read it? Is the moral judgment an illusion or in truth a reflection of something in the design and a matter of moment? Is man a person or a thing—and if a person, confined within the physical order, or reaching beyond it, and if so how far? Neither a man nor a doctor nor a generation can be at peace and purposeful without some kind of an answer.

I ask—is the medical student trained to find the answer?

And I answer, almost certainly, no.

Why not? First because this generation has no settled faith, and a medical school would be hard put to it to know what official answer to give or teach. Secondly, because it is not supposed to be their job.

Nor is it quite. And yet it matters intensely that medical students and their seniors should neither ignore these mysteries nor get hold of false answers nor pick up a ragbag of ideas about them, but should know the best that can be known.

The Christian Answers

I shall now tell them and you, in the fewest possible words, what is the answer of the Christian Faith.

1. Metaphysical Problem. Creation—its origin and upholding—is not accident, but design; and that not unconscious design, but the design of God. God is the creator of all things and holds all things living in life, and therefore is relevant to every problem, metaphysical, moral, and personal.

A priest said to a young man of his flock the other day, "I am going to ask you a question: I want you to answer it straight off without stopping to think. Would God be able to understand radar?" And the young man at once said "No." The Christian Faith says, "Of course he does; it is out of his workshop; and just as he knows all about radar so he knows all about you." There is a metaphysical unity of truth for you!

2. Ethical Problem. The moral judgment deals with realities (partially known as all realities are) because it derives from God. The Good really is good because it corresponds with the being of God, and Evil really is evil because it conflicts with the Perfection of God—and thank God for that. It really would be ghastly if at the heart of everything there really was no difference between the two, or even if Evil was God—the ultimate sovereign.

And the Christian Faith then does two things more for us: first it trains us to judge moral questions, our own and other people's, not by our own ideas but by what God has revealed of His Ideas; and like any good educationalist, God does not say, "There's the answer at the end of the book," but "Here are the principles. Work it out for yourselves and I will help you."

Secondly, the conflict of good and evil is real to God and to us. The process of overcoming evil with good is unceasing. Every man helps or hinders. Moral judgment is not an intellectual exercise but a personal commitment to a share in the battle.

3. Man. What is Man? The Christian Faith says, on our side, from our end, Man is a being who "has the capacity to hear the word of God and respond to it," and, from God's side, Man is the object of God's love, as God has shown in His own acts. Hence flow all the doctrines of the Christian Faith. So we believe in the Incarnation. So we can believe in a personal commitment of God through the Incarnation, physical defeat, and Bodily Resurrection. He did what we can believe, but could never believe had he not done it. And Man's part is to hear what God has done and respond to it. That is all I can say without making this more of a sermon than it is already.

So far has my consideration of the scientific aspect of medicine brought me. I have said these things to medical students, because they touch their profession closely. Many medical students don't often hear them and still less often think of them. Yet as a hypothesis, they have as much to be said for them as any medical hypothesis, and no one has a right to look askance at them, until he is quite certain that he has a better hypothesis which will better equip him for his life and for his work.

Social and Personal Aspects of Medicine

In what is left of my time may I hurriedly refer to two other aspects of medical work.

1. *The Social Aspect.* Here the Church and the medical profession ought to have sympathy for one another, for both of us now are "established," in a measure. You draw part of your salaries from the State; we draw not a penny piece from the State. But you and we have a State connection. We are intimately involved in the Welfare State and work for its welfare, and—and this is the point I want to make—we both insist that that State connection shall leave us absolutely free to deliver the truth that is in us—to care for persons, and for their true health, by our own highest standards.

And why? We are here to serve our people. We have and recognize our obligation to society. We intensely believe in the Welfare State, in the sense of a State which serves the true welfare (as we may see it) of all its people and does all to help it. Yet we look beyond and above the State for our principles. They are sacred. You have your medical creeds, and there is the Christian creed. They are sacred and cohere because they are both of God and not of man.

2. *The Personal Aspect.* When all is said and done —about scientific approach and social service—the end of science and of society is Man in himself and in his social relations. That is the whole point of the struggle against totalitarianism. Man and the family have their indefeasible rights and dignity which may not be overridden or denied, because they are not the result of sociology or State law, but are of God and to be respected by Man. And your job and mine is to serve Man in his own person and in his family, relieving his distresses of body and soul, preserving him in health of body, mind, and soul because he is not an Id, or an average, or a bit of statistics, but a fellow creature bound to us and we to him as members one of another in the family of God whose nature is Love. Body and soul are closely allied. The parson has his job with the souls of men but again and again he can't do it without help of the doctor. The doctor has his job with the bodies of men, but again and again he cannot do it without the help of a priest. That is being rediscovered. We cover the same ground and belong to one another, as from the beginning of the Christian era we always have. The blessed doctor is the general practitioner. He sees and knows not a case, but a person; not a person sole, but a person in his family. He is the family doctor. Nothing in State service must destroy that. Consultant specialists are a degree more remote

(*Continued on page 178*)

ANNIVERSARY NUMBER OF HAROFÉ HAIVRI

The appearance of Volume 2, 1949 of *The Hebrew Medical Journal* (Harofé Haivri) concludes the 22nd year of publication of this bi-lingual, semi-annual *Journal*, edited by Dr. Moses Einhorn.

Written in Hebrew, with English summaries, the Journal is a contribution to the development of Hebrew medical literature and thus facilitates teaching in the newly established Hebrew University-Haddassah Medical School in Israel.

In this issue a detailed article is presented on "Scoliosis" by Dr. Samuel Kleinberg, and Professor Arnold Kutzinski gives a comprehensive survey on "The Psychopathological Problems of the Jews in Israel."

There is a special section devoted to Historical Medicine which contains three interesting essays: "Medical and Anatomical Terms in the Pentateuch in the Light of Egyptian Medical Papyri" by Professor A. S. Yahuda; "Jews as Intermediaries of Medicine and Natural Science during the Middle Ages" by Dr. Zussmann Munter; "Al-Qirqisani's Essay on the Psycho-Physiology of Sleep and Dreams" by Dr. Leon Nemoy.

Under the heading of "Personalia" there are several articles paying tribute to Dr. Solomon R. Kagan on the occasion of his sixtieth birthday. Dr. Kagan is a well-known authority on Jewish medicine, medical biography and bibliography.

For further information, communicate with the Editorial Office of *The Hebrew Medical Journal*, 983 Park Avenue, New York 28, N. Y.

News and Personals

The American College of Physicians announces a new series of postgraduate courses in Clinical Allergy, Diseases of the Blood Vessels, Recent Developments in the Cardiovascular Field, Electrocardiography: Basic Principles and Interpretation, Endocrinology, The Dynamics of Metabolic Diseases, Trends and Newer Developments in Internal Medicine, and Clinical Aspects of Malnutrition. They will be presented at intervals throughout the year; the first, on Clinical Allergy, will be given at the Roosevelt Hospital, New York, from February 6 to 17. The second, on Diseases of the Blood Vessels, will be presented at Cornell University Medical College, New York, from March 13 to 18. Applications for registration forms are obtainable from Mr. E. R. Loveland, Executive Secretary, The American College of Physicians, 4200 Pine Street, Philadelphia 4, Pa.

A grant of $350,000 for the erection of an **Armed Forces Institute of Pathology** building near Walter Reed Hospital was approved by a House Armed Services Subcommittee on February 3. Congress had previously authorized $600,000 for a new Army institute building at Forest Glen, Md. It was to include a 1,000-bed hospital. However, the Secretary of Defense is reported to have ruled against constructing additional hospital beds in this area. It was decided the Institute should be built in conjunction with an existing hospital.

The present Army Institute of Pathology building at Seventh Street and Independence Ave., S. W. was constructed in 1887. It serves as a pathological clearing house for civilian as well as military units. Before World War II the institution was known as the Army Medical Museum, and the museum facilities remain an important part of the Institute.

The Board of Regents of the **American College of Chest Physicians** offers a cash prize award of $250 to be given annually for the best original contribution, preferably by a young investigator, on any phase relating to chest disease. The prize is open to contestants of foreign countries as well as to those residing in the United States. The winning contribution will be selected by a board of judges and the first award will be made at the annual meeting of the College, to be held in San Francisco, June 22–25, 1950.

The College reserves the right to invite the winner to present his contribution at the annual meeting and to publish the essay in its official publication, *Diseases of the Chest*. Contestants are advised to study the format of this journal especially as to the length, form and arrangement of illustrations.

The following conditions must be observed: Five copies of the manuscript, typewritten in English, should be submitted to the office of the American College of Chest Physicians not later than May 1, 1950. The only means of identification of the author or authors shall be a motto or other device on the title page and a sealed envelope, bearing the same motto on the outside, enclosing the name of the author or authors.

Additional information may be obtained from the Executive Secretary of the College, 500 North Dearborn Street, Chicago 10, Illinois.

The Army Medical Library has announced its decision to discontinue the Index-Catalogue following publication of the volume currently in preparation. The Library plans to publish a volume or volumes in which will be recorded monographic holdings complete up to the mid-century mark and to publish selectively the most useful portion of the vast backlog of over 1,750,000 yet unpublished references which have accumulated over the years.

The Library will augment and improve its *Current List of Medical Literature*. An author index will be added, a standard list of journals to be covered regularly will be introduced, classification by broad journal groupings will be abandoned, the format and frequency of publication may be altered, and a cumulative subject index will be provided.

Continuance of the record of the Library's monographic holdings has been assured in the form of an annual supplement to the Library of Congress' catalog of Printed Cards.

Opening exercises for the **12th class in Medical Aspects of Nuclear Energy** was held at the Army Medical Center on February 6. Among those who spoke were Colonel Elbert DeCoursey, Commandant, Army Medical Department Research and Graduate School, Major General Paul H. Streit, Commanding General of the Center, and Lt. Colonel Roy D. Maxwell, head of the School's Department of Radiology. The course, which lasted one week, consisted of a series of lectures by military and civilian leaders in the field of nuclear studies, with emphasis on the medical aspects. More than 250 physicians and other medical department personnel from National Military Establishment and its National Guard and reserve components, Veterans Administration, and U. S. Public Health Service were in attendance. Several state and health departments and medical and pharmacy schools were also represented.

The Fifty-first Annual Meeting of the American Therapeutic Society will be held at the Copley Plaza Hotel in Boston, on April 13, 14, 15 and 16. Physicians planning to attend the meeting are urged to notify the Secretary, Dr. Oscar B. Hunter, 915—19th Street, N.W., Washington 6, D. C. without delay. The Annual Get-together Dinner is scheduled for April 13.

The Eastern Sectional Meeting of the American Congress of Physical Medicine will be held in Washington, D.C., Saturday, April 29. The afternoon session will begin at 2 p.m. at George Washington University Hospital. Following dinner at the Willard Hotel there will be an evening session consisting of a panel discussion. Inquiries regarding the meeting should be directed to Dr. Herman L. Rudolph, Section Secretary, 400 North Fifth Street, Reading, Penna.

The Washington Heart Association is sponsoring a series of meetings in the Medical Society's building. On April 13, Dr. F. R. Shemm, of the Great Falls Clinic, Great Falls, Montana, will deliver a lecture on "Fluid Balance in Congestive Heart Failure."

On March 9 Dr. Howard B. Sprague, Instructor in Medicine at Harvard Medical School, addressed physicians on "Cardiac Auscultation and Practical Value of Graphic Records."

The Third Annual Postgraduate Course in Diseases of the Chest, sponsored by the American College of Chest Physicians, Pennsylvania Chapter, and the Laennec Society of Philadelphia, will be presented at the Warwick Hotel, Philadelphia, April 10-14, 1950. The course is open to all physicians, although the number of registrants will be limited. Tuition is $50.00 and the applications will be accepted in the order in which they are received. Applications should be sent to: American College of Chest Physicians, 500 North Dearborn Street, Chicago 10, Illinois.

The Medical Research Council of London has requested the District Medical Society to call to the attention of its members reports dealing with the results of original research, also memoranda which include practical summaries of recent knowledge on medical subjects and reports on *ad hoc* investigations of various sorts. In the future the Council proposes to send copies of all its publications dealing with clinical medicine or allied subjects to the Society. These will be made available to members who are interested.

Copies of the Council's reports may be obtained in the United States upon application to British Information Services, 30 Rockefeller Plaza, New York 20, N. Y.

Air Force medical reserve officers have been asked to volunteer for short tours of duty. An Air Forces regulation has been made public permitting the medical reserve officers to volunteer for periods of active duty of from one to 29 days a month, but not more than 90 days of active duty during the fiscal year. The purpose of this regulation is to maintain an active interest in the Air Force Medical Service and to alleviate the critical shortage of medical personnel in the Air Force. Physicians will be assigned to duty at the most convenient air bases in the locality where they reside. Where the vacancy and need at a base exists, arrangements will be made by the Base Surgeon for intermittent service, adaptable to the requirements of the person's civilian practice. More detailed information can be obtained by writing the Surgeon at the nearest Air Force base or to the Office of The Surgeon General, USAF, Washington 25, D. C.

Calendar of Meetings

February 1	Special Meeting of Society
February 2	Woman's Auxiliary
	Section on Neurology and Psychiatry
	Executive Committee of Gallinger Hospital
February 3	Subcommittee on Preliminary Estimates for Emergency Medical Care
	Grievance Committee
February 6	District Dental Society
February 7	Registered X-ray Technicians of Washington
	Orientation Luncheon
February 8	Scientific Meeting of Society
	Woman's Auxiliary
February 9	Medical Advisory Committee to Washington Regional Blood Center
February 10	Subcommittee on Preliminary Estimates for Emergency Medical Care
February 11	Washington School of Psychiatry
	Washington Psychoanalytic Society
February 13	Washington Orthopedic Club
February 14	Medical Officers' Reserve Units
	Orientation Luncheon
February 15	Scientific Meeting of Society
	Medical Advisory Committee to Washington Regional Blood Center
February 16	Committee on Child Health Study
	Committee on Medical Care
	Health Section, United Community Services
February 17	Committee on Postgraduate Education
	Program Committee
	Subcommittee on Preliminary Estimates for Emergency Medical Care
February 18	Section on Pathology
	Joint meeting of Washington Psychiatric Society and Washington Psychoanalytic Society
February 20	Nominating Committee
	Graduate Nurses' Association
February 21	Orientation Luncheon
February 23	District Dental Society
February 24	Committee on Public Health
February 27	Executive Board
February 28	Medical Officers' Reserve Units
	Section on General Practice
	Medical Advisory Committee to Washington Regional Blood Center
	Orientation Luncheon

A one-week course in anesthesiology for practicing physicians was presented during the week of February 27 by **George Washington University School of Medicine.** The course is the first of a series of six intensive postgraduate courses which will include lectures by Dr. William W. Mushin, Professor of Anesthesiology, Welsh National University, Cardiff, Wales.

Dr. Daniel L. Seckinger, District Health Officer, inaugurated a series of 13 weekly radio programs over Station WMAL on February 4, at 7:00 p.m., under the title, "Your Lease on Life." These broadcasts are sponsored by the District Health Department, District of Columbia Tuberculosis Association, Washington Heart Association, District Division of the American Cancer Society, Washington Hearing Society, District of Columbia Society for Prevention of Blindness, District of Columbia Social Hygiene Society, United Community Services, and Instructive Visiting Nurse Society. Mr. J. Edgar Caswell, Director of the Bureau of Public Health Education, is moderator for the program.

The purpose of these broadcasts is to familiarize residents of Washington with the various health agencies in the District and their functions.

The American Medical Association's Washington Office was moved from its former location, 1302—18th Street, N.W. to Rooms 300 to 312 at 1523 L Street, N.W., on March 1. The Association has taken over the entire third floor of the building on a five-year lease. Dr. Joseph F. Lawrence, an Active member of the Society, is Director of the Office.

Dr. Cyrus Maxwell and Mr. George Connery joined the Washington staff on March 1. Dr. Maxwell, a pediatrician, was formerly with the Federal Office of Education, where he held the position of Chief of Administration of School and College Health Services. He has been a leader in developing school health programs and is widely known through studies he has made on the efficiency of medical inspection of school children.

Mr. Connery is now Editor of the AMA Washington News Service. Before coming to Washington seven years ago he was News Editor of the Minneapolis *Morning Tribune*. He left that position to join the staff of the *Washington Post* as Sunday Editor and Special News Writer. More recently he has been News Editor for the Columbia Broadcasting System.

The Washington Psychiatric Society will meet in the Medical Society's auditorium, April 20. The guest speaker will be Dr. Paul Lemkau, Instructor in Psychiatry, Johns Hopkins University School of Medicine. Dr. Lemkau will speak on "Mental Hygiene in Public Health with Particular Reference to Normal Behavioral Patterns in Childhood." Discussants of his paper will be Drs. Robert Felix and Mabel Ross.

The Society will hold its annual dinner dance on March 25 in the Terrace Dining Room at the National Airport.

The first meeting of the **Committee on Arrangements for the 18th Annual Session of the Southeastern Surgical Congress Postgraduate Assembly** was held at the Shoreham Hotel on February 5. Dr. Harry Lee Claud, General Chairman, presided. On hand were Dr. R. J. Wilkinson, of Huntington, West Virginia, President of the Congress, and Dr. B. T. Beasley, Secretary-Treasurer, of Atlanta, Ga. In addition to the Co-chairmen of the Committee, Drs. Charles Stanley White and Harry H. Kerr, the following committee chairmen were present: Drs. J. Ross Veal, W. Ross Morris, William A. Morgan, H. H. Schoenfeld, J. Ogle Warfield, Mr. Theodore Wiprud and Mrs. Harry Lee Claud.

A competitive examination for appointment of Medical Officers in the Regular Corps of the United States Public Health Service will be held on May 15, 16 and 17, 1950. Examinations will be held at a number of points throughout the United States, located as centrally as possible in relation to the homes of the candidates. Applications must be received no later than April 17, 1950.

Appointments will be made in the grades of Assistant Surgeon and Senior Assistant Surgeon.

Application forms and additional information may be obtained by writing to the Surgeon General, USPHS, Federal Security Agency, Washington 25, D. C., Attention: Division of Commissioned Officers.

The monthly Staff Conference at **Gallinger Municipal Hospital,** January 12, was devoted to "The Problems of Caring for Patients with Long-term Illness." Leading the discussion was Dr. A. L. Chapman, Chief of the Division of Chronic Disease, U. S. Public Health Service. Participating in the general discussion were Dr. Harold Jeghers, of Georgetown University School of Medicine; Dr. Joseph L. Johnson, Dean, Howard University School of Medicine; and Drs. Thomas McP. Brown and Harry F. Dowling, of George Washington University School of Medicine. Dr. Sidney Shindell, Physician-in-charge of Gallinger's Department of Home Care, described the Home Medical Care Program for Gallinger and the District of Columbia.

The appointment of **Dr. Philip A. E. Stebbing** to succeed Dr. A. R. Sweeney as a member of the **Hospital Advisory Council** was announced by the District's Board of Commissioners on January 24. Colonel Carlin H. Whitesell was appointed to succeed Colonel Kenneth E. Madsen, as representative of state agencies concerned with the operation or organization of hospitals, and Mr. Elmer M. Pusey, Chairman of the Health Committee of the Washington Board of Trade, replaced Mr. F. H. Kenworthy as representative of consumers of hospital services.

"**The Health Insurance Story,**" a four-part report on the present status and future prospects of voluntary and compulsory health insurance in the United States, appeared in the January number of *Medical Economics.* The articles are brief but comprehensive and bring the story of health insurance up to date.

Identity cards for diabetics and others whose ailments sometimes resemble intoxication were issued by the Washington Metropolitan Police Department on January 20. Major Robert J. Barrett, Superintendent of Police, said the identification cards will be issued on the request of a physician or a member of the ill person's family. Duplicate records of those issued will be kept at police headquarters, precinct stations and hospitals for immediate reference. The Medical Society of the District of Columbia, the Naval Medical Center at Bethesda, and the Army Medical center will issue cards to physicians and to their patients on request. Cards can also be obtained at police headquarters.

Remodeling of rooms into new laboratories to permit additional cancer research at the **George**

Washington University Cancer Clinic was announced on January 23. There will be laboratories in pathology, chemotherapy and biochemistry in the old George Washington University Hospital building, 1339 H Street, N.W. The renovation will be done under a $50,000 grant from the National Cancer Institute. Dr. Calvin T. Klopp is Director of the University's cancer program.

The need for physicians in the Canal Zone was the subject of a letter addressed to the Secretary of the District Medical Society by Mr. B. F. Burdick, Chief of Office, The Panama Canal. The need has arisen because the Army is withdrawing a large number of commissioned medical officers who have been assigned to duty with the Panama Canal. The communication states:

> "This is an unusual opportunity to gain valuable professional experience in a tropical country based on a wide variety of clinical material. There are many opportunities in the hospital service as specialists in pediatrics, general surgery, obstetrics, roentgenology, psychiatry, internal medicine, cardiology, tuberculosis, thoracic surgery, orthopedics, urology and anesthesiology. Free transportation to the Canal Zone is provided for the appointee, his family, and his household goods. Family housing at a reasonable rental is immediately available. A two months' vacation with pay (which includes time lost for illness) is allowed and reduced rates are granted on Panama Line vessels between the Canal Zone and New York. Candidates for these positions must be graduates of Class A medical schools approved by the American Medical Association. They must also be American citizens not over 45 years of age. The age limit may be waived under certain conditions. These positions are on the medical staffs of the Panama Canal hospitals and in out-patient clinics. Starting salaries range from $6,750 a year to $9,500 a year, according to training and experience, and type of position."

The Executive Board of the Medical Society of the District of Columbia held its monthly meeting on January 30. At that time it reviewed the annual membership and financial reports, the latter having been prepared by Wayne Kendrick and Company. The budget for 1950 was approved and will be submitted to the Society at the March business meeting for approval.

Dr. Fred O. Coe was nominated to succeed himself as Vice President of the Washington Academy of Sciences representing the Society.

Dr. Herbert P. Ramsey, local Chairman of the Coördinating Committee of the National Education Campaign, Dr. William T. Gibb, Jr., Vice Chairman of the Committee on Public Relations, and Theodore Wiprud, Secretary and Executive Director of the Medical Society, were designated the Society's representatives at the National Education Campaign Conference which was held in Chicago, February 12.

A special committee appointed by President Freeman to review the recent child health study sponsored by the District Chapter of the American Academy of Pediatrics was confirmed. Members of the committee are: Dr. Hugh J. Davis, *Chairman*, Drs. Edgar P. Copeland, George Maksim, William A. Howard, John E. Cassidy, William F. Burdick, William S. Anderson, Herbert S. Gates, George Nordlinger, Allan B. Coleman, and Maurice H. Friedman.

At a meeting of the Board on December 19, 1949, the Committee on Medical Care was asked to confer with representatives of Group Health Association, Inc. for the purpose of considering data in connection with its application for approval by the Society. The twenty principles adopted by the A.M.A.'s House of Delegates for consumer-controlled medical plans will be used as a guide by the Committee, which has received the data and is studying them at the present time.

On November 28 the Board accepted the resignation of Dr. Robert J. Coffey as General Chairman of the 21st ANNUAL SCIENTIFIC ASSEMBLY. In view of his resignation the Board rescinded previous action that the General Chairman of the Committee on Arrangements for the ASA should serve a two-year period. Dr. Karl C. Corley, Vice Chairman, was advanced to General Chairman and Dr. Leonard T. Peterson was designated Vice Chairman.

Dr. J. Lawn Thompson, Jr., was named Chairman of the newly created Committee on Hospital and Professional Relations due to the resignation of Dr. W. Warren Sager.

New appointees to the Interprofessional Conference were submitted by President Freeman and approved by the Board. They are Drs. Michael J. McInerny, Lawrence A. Rapee and Frank S. Ashburn, who will serve a three-year term beginning January 1, 1950. They succeed Drs. Robert J. Coffey, Emmett G. Coiner and Thomas F. Collins, who have completed their full terms.

The Board expressed its appreciation to Dr. Carlton N. Price for the gift of a gavel which had been made from wood taken from the White House prior to its reconstruction.

The Medico-Chirurgical Society, Inc. has reëlected Dr. John Sinclair Perry as President. Other officers elected at the annual meeting in January were Dr. Edward C. Mazique, Vice President; Dr. Alvin F. Robinson, Secretary; and Dr. Claude P. Carmichael, Treasurer. Elected to the Board of Governors were Drs. Joseph N. Dodson, Clarence S. Green, Edward S. Jones and Emerson A. Williams.

The District of Columbia Dental Society observed **National Children's Dental Health Day** on February 6 at a meeting in the Medical Society's auditorium. Dr. Maury Massley, Professor of Graduate Pedodontics of the University of Illinois College of Dentistry, spoke on "Oral Habits in Children: Significance and Management." Participating in the discussion were Dr. Reginald S. Lourie, Director of the Department of Psychiatry, Children's Hospital, and Dr. George Maksim, Chairman of the Section on Pediatrics of the District Medical Society.

The Medical Arts Society will hold its regular monthly meeting on April 13, 1950. Dr. E. Aschenbach will speak on "A study of Incipient Diabetes."

Dr. Brian Blades, Professor of Surgery at George Washington University School of Medicine, participated in the Staff Conference of the Veterans Administration Hospital in Puerto Rico on January 9. His subjects were "Intrathoracic Tumors," "Surgical Treatment of Chronic Pulmonary Separation," and "Arteriovenous Fistula of the Lung." Dr. Blades' lectures were a part of a series of monthly talks by outstanding physicians in the United States and Puerto Rico.

Dr. Eugene J. McDonald has recently been appointed Chief of Radiology at Columbia Hospital for Women to succeed Dr. Isadore Lattman. Dr. McDonald, who has been engaged in private practice in Washington for several years, served in the United States Navy, retiring with the rank of Commander in 1947. His last assignment was at the Naval Medical Center, Bethesda, Md. Dr. McDonald is a diplomate of the American Board of Radiology.

Dr. Othmar C. Solnitzky, Professor of Anatomy, Georgetown University School of Medicine, addressed the **Section on Neurology and Psychiatry** at the Medical Society's building on February 2. His subject was "The Neuro-Anatomy of the Auditory Apparatus."

Members of the **American Psychiatric Association** were invited to inspect its new Washington offices at 1624 Eye Street, N.W., on Friday, January 20. Dr. Daniel Blain is the Medical Director of the Association.

Dr. Henry W. Brosin of Chicago addressed a joint meeting of the **Washington Psychiatric Society, the Washington Psychoanalytic Society and the Medical Society of St. Elizabeths Hospital** at the District Medical Society's building on February 18. The subject of Dr. Brosin's address was "Psychoanalytic Studies on Cerebral Injuries." Drs. Lewis B. Hill, David McK. Rioch and Zigmond M. Lebensohn participated in the discussion which followed.

Mr. Nelson T. Hartson was appointed Chairman of the Committee on Chronic Illness by Dr. Winfred Overholser, Chairman of the Health Section, United Community Services of Washington. Mr. Hartson is senior partner of the law firm, Hogan and Hartson, general counsel for the Riggs National Bank, and former Chairman of the Congressional Relations Committee of the Washington Board of Trade.

Dr. Joseph E. Smadel, Director of the Virus and Rickettsial Division of the Army Medical Department Research and Graduate School, Army Medical Center, addressed two medical meetings in London in February. He spoke on "Newer Antibiotics" before the Royal Army Medical College, and addressed the Royal Society of Tropical Medicine and Hygiene on "Chloromycetin and Tropical Medicine."

Dr. Murray M. Copeland, Professor of Oncology, Georgetown University Medical Center, participated in a Symposium on Cancer sponsored by the Clinical Society of the New York Polyclinic Medical School and Hospital, New York, on February 6. His subject was "Malignant Aspects of Certain Cartilaginous Tumors of the Bone."

Dr. Copeland presented papers on "Radio-isotopes in Medicine" and "Cartilaginous Bone Tumors" during the 17th Annual Convention of the

American Academy of Orthopedic Surgeons held in New York, February 11–16.

He was also a guest examiner on the American Board of Orthopedic Surgery which met in New York, February 9 and 10.

Dr. Daniel L. Seckinger, District Health Officer, addressed the Interprofessional Conference of the District of Columbia on "Over-all Needs of the Health Department Including Care of the Chronically Ill" at its meeting at the Congressional Hotel, January 16. Miss Edith M. Beattie is the President of the Conference. Representing the Society at this meeting were Drs. Michael J. McInerney and Lawrence A. Rapee.

"The Current Sex-Crime Situation" was the topic for discussion at the **District Social Hygiene Society's annual luncheon** at Barker Hall, Y.W.C.A., on February 8. Speakers participating in the panel discussion were James V. Bennett, Director of the Bureau of Prisons, United States Attorney George Morris Fay, and Dr. Winfred Overholser, Superintendent of St. Elizabeths Hospital. Dr. William P. Herbst, Jr., President of the Society, presided.

Dr. Lois I. Platt, Clinical Instructor in Surgery at George Washington University, addressed the postgraduate seminar in gynecology at the University of Maryland School of Medicine on January 27.

Brigadier General Wallace H. Graham, President Truman's personal physician, was appointed Special Assistant on Medical Reserve Affairs to Major General Harry G. Armstrong, Air Surgeon General, on January 27. The new assignment will be in addition to his present duties.

General Graham was named the President's personal physician in September 1945, following his return from combat duty as Chief of Surgical Service for the 24th Evacuation Hospital. He continued in this post from the Normandy invasion until VE-Day. A flight surgeon, General Graham was transferred from the Army Reserve Corps to Air Force Reserve on July 1, 1949.

Dr. Winfred Overholser was in Knoxville, Tennessee, February 2, where he addressed the Knoxville Mental Health Association on "What the City Can Do to Promote Mental Health."

Dr. Charles H. Nash, Jr., has been appointed Assistant Chief Medical Officer in Obstetrics and Gynecology at **Gallinger Municipal Hospital.** Dr. Nash served as instructor in this specialty at George Washington University School of Medicine for six months. He replaces Dr. Pete Cummings, who resigned.

Dr. Harry E. Altman left on February 1 to begin a residency in obstetrics and gynecology at Franklin Square Hospital, Baltimore.

BOOK REVIEW

An Atlas of the Blood and Bone Marrow. R. PHILIP CUSTER, M.D., Director, Laboratories of the Presbyterian Hospital in Philadelphia; Assistant Professor of Pathology, The University of Pennsylvania School of Medicine; Consultant to the Armed Forces Institute of Pathology. Price, $15.00. Pp. 321, with 285 figures (42 in color). Philadelphia: Saunders, 1949.

This volume is the first atlas which embodies the application of clinical histopathologic technic and knowledge to the study of the hematologic disorders. It fills a gap in the literature on blood and blood diseases by bridging the chasm between the pathologist and the clinical hematologist.

Dr. Custer has arranged his material in an orderly and logical manner and has emphasized the variations of hematologic disorders which are most frequently given only casual mention by most textbooks on hematology.

This book has many excellent tissue photomicrographs as well as blood and bone marrow film photomicrographs, and tends to correlate the findings as seen under Wright's stain in blood stains and those seen in tissue sections with hematoxylin and eosin stain. The text is concise and succinct, touching only the pertinent features of each condition.

Much of this work was started while Dr. Custer was at the Armed Forces Institute of Pathology and it embodies much of the data accumulated in that institution, particularly the material found in the division of reticuloendothelial pathology. Some of the data of the Lymphatic Tumor Registry are outlined.

This book is indeed an Atlas, containing as it does 285 illustrations, many of them full-page. Forty-two of the illustrations are color reproductions, the best that I have seen published to date.

For the student of pathology or of hematology this book is an invaluable aid. For the clinician there is considerable assistance to be derived from the correlation of pictures and text with blood films. There is no space devoted to therapy.

OSCAR B. HUNTER, JR., M.D.

Decamethonium Bromide in Anesthesia—Spencer and Coakley

(*Continued from page 135*)

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Treatment of Hypertension—Walsh

(*Continued from page 140*)

and may be gradually decreased as the patient's system accommodates itself. In some cases the tachycardia has been known to persist for 3 years. The drop in blood pressure in most successful cases is immediate, and when the drop develops over a period of 6 to 12 months in all likelihood the patient was improperly selected.

In conclusion, let me reiterate the current feeling of pessimism about present treatment. We must find the answer and yet we have not found even a logical basis for treatment. Our therapy is at present directed to relief of symptoms and the lowering of blood pressure, but we do not even know that the blood pressure should be lowered. Perhaps our patients need it. To date, no one has been able to determine whether the progress of the disease has been altered by simply lowering the pressure. The important patient to treat carefully is the young patient with fixed hypertension who has not yet suffered severe renal damage. We can help him and with good judgment can prolong his life. As for the others, we can only study, investigate, and, I hope, progress to the proper conclusion.

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Administration of Antibiotics—Hirsh and Kurland

(*Continued from page 145*)

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Care of Hand Injuries

(*Continued from page 160*)

Healing of carpal bone fractures requires 12 to 14 weeks' immobilization. Fractures of the navicular may require 4 months to unite. If immobilized consistently for this length of time, most of these fractures will not require surgical intervention.

4. Restoration of function

During the healing process all joints not necessarily immobilized should be freely moved to activate their controlling muscles, and their use by the patient encouraged.

Following establishment of healing or firm union, restoration of function is secured by directed active motion, particularly by means of exercise and occupational therapy.

Doctor's Creed—Fisher

(*Continued from page 169*)

(like bishops!): and therefore (again like bishops) they need a double dose of Grace to keep them sensitive to the personal and pastoral.

THE DOCTOR'S CREED

And this last word: if doctor and priest are covering the same ground with their complementary prescriptions, the doctor needs to be anchored to a Faith as good and compelling, true and exacting, as that of a priest. For he has to deliver the goods—spiritual as well as physical. He must have a creed that impels him to value, care for, respect each man, and if he is to have that, it must be a creed which governs him himself. For I believe that what men look for and need and pray for in a doctor is something over and above his skill in medicine. It is a sure touch—in the things of the spirit. And as I have said, no man has the right to reject or by-pass the Christian Faith unless and until by prayer and fasting he has convinced himself of a Faith truer, better, and which exacts more and not less from him.

Our Living Past Presidents—White

(*Continued from page 164*)

are inherent qualities of his personality. Along with these he has in high degree that not-so-common characteristic called common sense, that is, the ability to assess proper relative values to the many factors that enter into the diagnosis and treatment of a particular case or evaluation of a complex situation. In the writer's opinion, however, Dr. White has one outstanding characteristic which is evident to all who work with him in daily contact. It is that quality which William Osler described as "equanimity," that complete control of emotions, speech, and actions which is the result of long discipline; that imperturbability in difficult situations which may make the difference between success and failure, and which gives confidence to patient and assistant; that even kindliness of disposition which pervades all of his personal contacts and endears him to patients and consultants. All of these qualities of mind and character have been completely and constantly dedicated to the noble profession that he serves, so that one of his long-time assistants says of him that "It is more than family or friends, more than food or raiment, more than wealth, more than rest or sleep—it is as though he were present when the call came to the few disciples—'Forsake all else . . . and follow me.' "

At the Annual Scientific Assembly of the Medical Society of the District of Columbia for 1949 the Society presented to Dr. White a citation in "grateful acknowledgment of his outstanding contribution to medicine." Everyone who knows him is in full accord with the sentiments there expressed, that "By example and precept he has had profound influence for good on medical practice in the District of Columbia."

ARTHUR C. CHRISTIE, M.D.

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INTRAVENOUS INFUSIONS OF "INVERT SUGAR"*†

A Preliminary Report

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THE steady increase in knowledge concerning the metabolic disturbances associated with starvation in both medical and surgical diseases has involved the problem of providing an adequate ration by either oral or parenteral routes. In many medical diseases an adequate nutritional and caloric ration can be achieved by planned oral feeding. The surgical patient, on the other hand, frequently cannot rely on the oral route for calories, and therefore must be fed parenterally. Most of the nutritional solutions commonly available for intravenous use are too dilute to provide the required number of calories in a reasonable volume of fluid, and hypertonic solutions must be used. Even with the use of hypertonic dextrose solutions, the rate of tolerance (0.6 to 0.8 Gm. per Kg. per hour in a healthy subject) requires a prolonged period of administration if adequate calories are to be supplied for each 24-hour period.

It is therefore obvious that a substance which can be given readily intravenously at rapid rates, with high tolerance and threshold, and which will easily supply calories would aid in the solution of the problem of caloric feeding by veins.

Studies with intravenous infusions of 50 Gm. of invert sugar‡ as compared to 50 Gm. of dextrose indicate that the invert sugar may be given twice as fast as dextrose without glycosuria.

METHOD OF STUDY

1. Coöperative males on the surgical wards were used for the comparative tolerance studies. The ages varied considerably; many represented chronically ill patients. However, none of the subjects were immediate postoperative surgical patients.

2. All blood samples were drawn from the opposite arm used for the intravenous infusions into test tubes containing citrate and were not stored for longer than 6 hours at 4° to 6° C. before chemical analysis.

3. Urine samples were collected before, during, and after the infusions in separate containers by voluntary voiding of the patient. Both quali-

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† Laboratory procedures performed by Mr. George F. Lane.

‡ Supplied by the Baxter Laboratories, Inc., Morton Grove, Ill.

tative and quantitative sugar-reducing tests were performed. The urine samples were collected whenever possible at intervals corresponding to the drawing of the blood.

4. The patients were in the postabsorptive state; no food was allowed orally and only 500 c.c. of water was permitted by mouth throughout the study period.

5. The Benedict's qualitative and quantitative tests were performed on all specimens to determine the blood sugar levels and the amount of glycosuria.

Results with Intravenous Administration

Tolerance results with 1,000 c.c. of 5 per cent dextrose in normal saline at an average rate of 0.78 Gm. per Kg. per hour in 10 subjects. The ages of the subjects ranged from 34 to 80 years of age; 5 were over 65 years of age. Their weights also varied considerably between 31 and 96 Kg., with an average of 60 Kg. Body temperature, pulse rate, and blood pressure determinations before and after the infusions did not reveal any significant variations which could be recognized as important.

The highest blood sugar level attained was 302 mg. per cent, and the lowest level was 209 mg. per cent, whereas the average blood sugar level noted at the end of the infusion was 251 mg. per cent. The blood sugar levels returned to normal in all instances within 3 hours after the end of the infusions, and in many instances reached normal range at the end of the second hour following completion of the infusion.

The administration rates per Kg. of body weight per hour for the 10 patients were 0.79, 0.72, 0.77, 0.82, 0.77, 0.77, 0.79, 0.78, 0.80, and 0.78 Gm. The average is 0.78 Gm. per Kg. of body weight per hour.

All but 1 patient had glycosuria. The total grams of glycosuria found in all of the urine specimens analyzed for each subject is shown in table 1.

The range of glycosuria varied between 0.0 Gm. and 10.35 Gm., with an average value of 3.1 Gm. These values converted to per cent of infused material lost by glycosuria shows an average result of 6.2 per cent; the greatest amount lost was 20.7 per cent. Five, or 50 per cent of the subjects in this study, lost more than 6 per cent of the amount of sugar infused. This represents 3.0 Gm. of the 50 Gm. injected.

TABLE 1

Total Grams of Reducing Substance in Urine after Intravenous Infusions of 1,000 c.c. of 5 per cent Dextrose in Physiologic Saline at an Average Rate of 0.78 Gm. per Kg. per Hour

	CASE NUMBER									
	1	2	3	4	5	6	7	8	9	10
Total grams of reducing substance in urine	10.3	1.5	0.0	1.1	0.8	3.7	1.9	4.6	3.0	4.1
Per cent of infused material lost	20.7	2.9	0.0	2.2	1.6	7.4	3.7	9.2	6.1	8.1

These figures help to explain the frequent finding of a 2 or 3 plus qualitative Benedict's test seen in many patients given dextrose solutions before or after surgery. Since the average time required for the infusions of this investigation was 69 minutes, if one is to prevent glycosuria and the loss of the dextrose infused in the average subject, more than 1 hour is necessary for the intravenous route of dextrose in 1,000 c.c. of a 5 per cent solution.

Tolerance results with 1,000 c.c. of 5 per cent invert sugar in normal saline at an average rate of 1.5 Gm. per Kg. per hour in 10 subjects. Nine of the subjects in this series of 10 are the same individuals used in the tests previously described for the group with dextrose. The use of the same patients eliminates an important variable, the specific responses of each subject. It is, therefore, unnecessary to describe the average age, weight, etc., for this group, because there is practically no statistical difference.

The maximum blood sugar level seen was 232 mg. per cent, whereas the lowest value was 188; 214 mg. per cent is the average maximum level noted at the end of the infusion. The decrease of the high sugar levels in the blood to normal values requires 1 to 2 hours after the completion of the infusion.

The following administration rates were noted: 1.5, 1.7, 1.5, 1.6, 1.7, 1.6, 1.6, 1.6, 1.4, and 1.4 Gm. per Kg. per hour. An average rate of 1.5 Gm. per Kg. of body weight per hour is recorded.

None of the 10 patients revealed significant glycosuria. The grams of reducing substance found for the entire urinary specimens averaged 0.4 Gm. Two patients had no detectable reducing substance present, and 6 showed less than the average value of 0.4 Gm. The quantity of reducing substance found in the urine was so minimal that it was difficult to find a positive qualitative Benedict's test in the specimens which were measured quantitatively. Table 2 describes the grams of reducing sugar found in the urine of each study case.

CHART 1

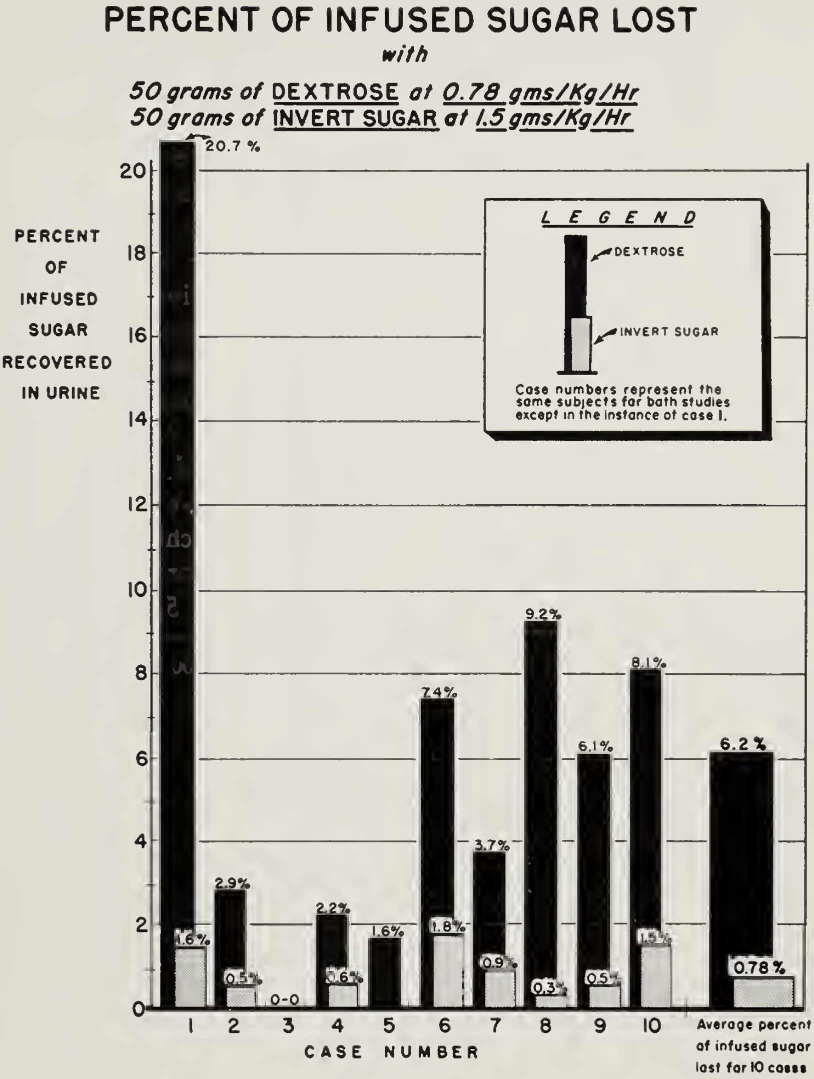

TABLE 2

Total Grams of Reducing Substance in Urine after Intravenous Infusions of 1,000 c.c. of 5 per cent Invert Sugar in Physiologic Saline at an Average Rate of 1.5 Gm. per Kg. per Hour

	CASE NUMBER									
	1	2	3	4	5	6	7	8	9	10
Total grams of reducing substance in urine	0.8	0.2	0.0	0.3	0.0	0.9	0.5	0.2	0.3	0.7
Per cent of infused material lost	1.6	0.5	0.0	0.6	0.0	1.8	0.9	0.3	0.5	1.5

Less than 1 per cent of the 50 Gm. of invert sugar injected at a rate of 1.5 Gm. per Kg. per hour was detected in the urine. The actual average per cent of the sugar lost with the infusion was 0.78 per cent. A range between 0.0 and 1.8 per cent were the values for the excretion of sugar with the infusion of 50 Gm. of invert sugar in approximately 34 minutes.

A comparison of the per cent of infused sugar lost for both the dextrose and invert sugar during the tolerance studies previously described is shown in chart 1; that is, when 50 Gm. of dextrose in 1,000 c.c. of saline is given at 0.78 Gm. per Kg. per hour, or in 69 minutes, to 10 subjects, and when 50 Gm. of invert sugar is given at 1.5 Gm. per hour, or in 34 minutes intravenously. Each case number in this chart represents the same patient for both the dextrose and invert sugar except in the instance of case 1.

Many variations in rate of injection, quantity of sugar, amount of fluid, and combinations of invert sugar with bovine plasma protein hydrolysate and other substances are being studied in all types of surgical patients, both preoperatively and postoperatively. This work will help to evaluate the place of invert sugar as a substitute for dextrose in parenteral therapy.

SUMMARY

1. Fifty Gm. of dextrose in 1,000 c.c. of saline was injected at a rate of 0.78 Gm. per Kg. per hour, or in 69 minutes to 10 patients. Six per cent of the infused substance was recovered in the urine, that is, lost to the patient.

2. Fifty Gm. of invert sugar in 1,000 c.c. of saline was injected at a rate of 1.5 Gm. per Kg. per hour, or in 34 minutes to the same 10 subjects (except for 1), and only 0.78 per cent of the infused substance was found in the urine.

3. Equal quantities of invert sugar may be given twice as fast as dextrose, and the amount lost in the urine will be only one tenth of that seen with dextrose. This means that 10 times more dextrose will be lost to the patient.

4. Invert sugar may be used as a substitute for dextrose to supply calories and glycogen. We may now be able to simply and safely achieve positive caloric balance in patients on parenteral therapy.

5. Further study is indicated.

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DETECTION AND PREVENTION OF EARLY CANCER[*]

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THE role of preventive measures in the control of cancer has been the subject of active controversy, but interested physicians are now agreed that the high mortality and perhaps the incidence of cancer would be materially reduced if the disease were diagnosed in its incipiency, and that the disease might even be prevented if predisposing factors were recognized early and promptly and properly treated.

The principal hazards to be overcome in accomplishing these ends have been the indifference of the public and the skepticism of the medical profession. The educational campaigns of the American Cancer Society, however, have created a cancer-conscious public, eager to cooperate with physicians if there were a possibility that cancer could be avoided. Unfortunately, the medical profession was unprepared and reacted with characteristic resistance to the idea.

As early as 1926, the late Dr. James Ewing,[1] in a monograph on the prevention of cancer, clearly outlined the possibilities, through his basic knowledge of the life history of the disease. He emphasized these facts: that cancer does not arise fullblown, but requires a definite time element for its development from a local lesion to what is generally recognized as cancer; that there are many predisposing factors, which may even precede those conditions designated as precancerous lesions; and that if these are treated successfully it is logical to assume that in many instances the future development of cancer may be prevented.

To give a clearer picture of the significance of the term "cancer prevention," we may arbitrarily divide it into two parts. The first is true cancer prevention, which should include the intensive and prolonged study of the predisposing factors having an influence on the future development of cancer, such as the effects of chemical, bacterial, thermal, or other irritants on susceptible individuals, and the interrelation of hormones and estrogens and their effect on the physiologic functions of the body. These problems belong in the realm of public health and preventive medicine, but should also be kept in mind by the practicing physician and the clinic staff.

A second division of cancer prevention falls directly in the province of the examining physician, that is, the prevention of the development of a fully malignant neoplasm. This entails a knowledge of the earliest manifestations of cancer, as well as of those conditions which are known to precede the actual cancer, and presumes the ability to diagnose them.

These observations are offered to justify the use of the term "cancer prevention" to designate the examination of presumably well persons in the effort to control the disease.

In considering the term "detection" of early cancer, we find that it implies the recognition of an early, already existing cancer, which can be accurately established by the examining physician with the aid of modern methods of diagnosis. However, since the use of the term "detection" has become so widespread and since it has a meaning similar to the second division of our tentative classification, I suggest a compromise: that wherever possible the term "cancer prevention and detection center" be employed to designate clinics for periodic health examinations for cancer. When we consider that the majority of persons applying at these clinics for examination are presumably well, the use of the term "detection" alone rather limits the horizon and dampens the hope in the individual that the lethal disease can be prevented. Furthermore, it does not seem to add any information to the broader picture of cancer prevention as outlined here.

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[*] Delivered at the Twentieth Annual Scientific Assembly of the Medical Society of the District of Columbia, October 18, 1949.

SUGGESTIONS FOR THE PREVENTION OF CANCER

The prevention of cancer is one of the great problems of the future and its solution depends on active coöperation of the public and a well trained and alert medical profession. As I have already stated, there must be intensive research into the effect of external irritants and into the direct or indirect influence of varying chemical and hormone reactions in the body through individual susceptibility. Studies of these problems are now being carried on in many industrial plants, research foundations, and medical schools. The awakened enthusiasm in the study of these possible underlying factors is evidenced in the greater activity in this field of the United States Public Health Service. Broad investigations are now in progress at the Sloan-Kettering Institute in Memorial Hospital Cancer Center to determine the biochemical reactions in the body, to test the influence air pollution may have on the increased incidence of cancer of the lung, and to follow out a host of other original forms of research. Such research may prove of value in the future control of cancer as well as a step toward the discovery of its underlying cause.

But, until the investigation of these vast problems of research has reached a practical stage, the responsibility in cancer prevention and detection must still rest on the individual physician, whether in general practice or in an organized clinic. Here may be applied all the measures so successfully employed in the program of tuberculosis control. One definite reason why the cancer prevention program has lagged is that in tuberculosis we have a communicable disease with a known cause, whereas in cancer, which is not communicable, there is no such urge to control.

What are the possibilities for broadening this cancer prevention program? One of the indispensable means is continued education of the public. But of far greater importance is the education of the physician in an integrated program for early diagnosis. This education should commence in our medical schools and be carried through in postgraduate opportunities offered to all physicians. Emphasis on prevention in cancer places it in the departments of preventive medicine, and it should become a part of the medical college curriculum. Cornell University Medical College has recognized this, and cancer prevention is now one of the obligatory courses in the third year in its Department of Preventive Medicine. Local, organized cancer clinics will always be needed as centers for refresher courses, for testing the value of diagnostic methods, for accurate statistics of results, and for implementing future advances in this branch of preventive medicine.

NEWER METHODS OF DETECTING EARLY CANCER

If cancer is to be diagnosed early enough to offer a reasonable percentage of cures, we must be prepared to recognize its first manifestations. To attain this end a definite plan of examination of individuals in the asymptomatic stage must be formulated. The first step in the procedure should be a complete physical examination of the entire body, every available modern method of diagnosis being utilized in reaching a definite opinion as to the presence of precancerous conditions or of early cancer.

During the past ten years a number of simple and accurate laboratory tests have been added to the routine examination. Notable among these is the cytologic diagnosis of smears taken from body fluids. This test was first described by Papanicolaou[2] and developed to a high degree of efficiency in the recognition of early cancer of the corpus and cervix uteri. Other body secretions are now under intense research by this method, as exemplified by the use of sputum, gastric, bronchial, and rectal smears. Diagnosis by means of each of these may eventually be found to be as accurate as for vaginal smears in diagnosing early cancer. The most recent advance in this particular cytologic technic is described in a report by McNeer and Ewing[3] of the recognition of an early cancer of the pancreas by smears from duodenal drainage.

Photoroentgen examination of all apparently healthy individuals may, when used as a routine, give the earliest evidence of lung cancer or reveal silent metastatic neoplasms in the lungs. There has been much discussion as to the relative value of this expensive test when the apparently low incidence of cancer of the lung is compared with the higher incidence of cancer in other regions, such as the gastrointestinal tract or pelvis. This argument does not seem valid, since the records show increasing frequency of lung cancer, which we now realize may be treated successfully in its early stages. This is confirmed by Watson and Diamond,[4] who in 745 cancers in males discovered 33 thoracic tumors, 23 of which were asymptomatic and operable.

Routine gastric surveys are valuable adjuncts in the recognition of early cancer of the upper gastrointestinal tract, but their value is dependent on the services of an expert radiologist. They have proved interesting and instructive in our clinics during the past 2 years, leading to the diagnosis of several silent cancers of the stomach and eosphagus and of some conditions which may be designated as precancerous.

A proctoscopic examination with a sigmoidoscope is an essential diagnostic procedure, especially in persons past 45 years of age. The technic is simple and the information obtained is both accurate and revealing, for, as we all will concede, polyps in this region may be definitely considered precancerous lesions. The number of early silent cancers of the sigmoid and rectum which can be discovered by this method at a time when surgery may be effective warrants the conclusion that every complete examination of an apparently healthy person of middle age should include this procedure.

The importance of biopsies cannot be overestimated, since these give us a histologic picture of the lesion under investigation and the information derived is frequently the deciding factor in the diagnosis. Of course, this presupposes that the tissue removed is to be examined by a well-trained pathologist.

The surgical biopsy is easily carried out in all superficial or extrinsic lesions by means of a simple biopsy punch. When deeper tissues are required for examination a local operative procedure is indicated. In suspected skin lesions it is safer to remove the entire lesion rather than to depend on punch biopsy. However, in dealing with questionable lesions in the cervix uteri the punch biopsy is usually satisfactory.

The complete removal of rectal or sigmoidal polyps may be considered in the realm of surgical biopsies, for not only are they potential early cancers, but frequently a single polyp may show a fully malignant cancer in one area while the remainder may show only benign tissue. The value of the surgical biopsy is not limited to extrinsic cancers; it may and often does prove to be the determining factor in the diagnosis, with the aid of the gastroscope, esophagoscope, or bronchoscope, of suspicious gastric, esophageal, or bronchial lesions.

In this brief discussion of surgical biopsies I have limited myself to those which may be carried out in a clinic or in a well equipped office, and have omitted those requiring hospitalization.

An aspiration biopsy is a simple procedure, and if positive gives accurate information as to the nature of the disease. It may be done with impunity in cases of extrinsic tumors, and in many instances has been the means of reaching a diagnosis in cases of intrinsic neoplasms. It is a valuable adjunct in the diagnosis of early or questionable lesions in the breast, proving in our experience to be both accurate and without risk. In fact, the use of aspiration biopsies is being broadened each year as a means of early diagnosis in obscure and difficult cancers of the soft parts, in which X-ray films give little information of value.

VALUE OF PERIODIC HEALTH EXAMINATIONS IN ORGANIZED CLINICS OR IN THE GENERAL PRACTITIONER'S OFFICE

One of the important steps in the work of cancer prevention is to awaken in the minds of the medical profession and the public the realization that one complete physical examination in the lifetime of an adult is not sufficient to detect or to prevent cancer. It is the experience in our clinics, and I am sure every general practitioner will agree, that the periodic physical examination tends not only to promote better health but is often the means of recognizing the nature of an otherwise obscure or silent lesion.

The question has been raised as to how the problem of the ever increasing number of return visits in a well established clinic can be solved. It has been suggested that the first examination be made in the clinic and the return visits be made to the general practitioner. There are advantages in this suggestion and some definite disadvantages, for unless the physician to whom the examinee is referred has some knowledge of the previous condition, the interpretation of an existing lesion is much more difficult. Furthermore, most individuals prefer to have their re-examinations or checks made by the same methods and the same physicians each time; and this also favors a more satisfactory statistical study for future use. A divided responsibility is seldom desirable. Another possible solution advanced is that the general practitioner's office should be the center for these periodic cancer health examinations. Theoretically that idea is sound; but practically there are many disadvantages in such a procedure. First, people are reluctant to go to their own physicians unless they are ill; second, the average doctor is so busy treating patients actually sick that he has no time for the complete examination of healthy individuals; third, the methods used in these examinations are not always possible in a physician's office because of the lack of proper equipment or of technical training.

The solution of this problem becomes, therefore, increasingly difficult. There is no doubt that it would be a physical and financial impossibility to establish a sufficient number of properly organized prevention and detection centers to serve the entire population. On the other hand, the practitioner is too busy to assume the load. There seems only one possible answer, that is, to establish prevention and detection centers in larger cities to serve as pilot clinics for post-graduate refresher courses to encourage and aid the general practitioner. When the medical profession becomes conscious of the importance of prevention and early detection in the control of cancer and its cure, the general practitioner's office will be the most valuable link in the chain of the solution of the cancer problem, because the purpose of organized clinics must always be through sincere coöperation to guide and support the general practitioner on diagnostic procedures. Therefore, we must conclude that neither the cancer prevention and detection center nor the general practitioner's office alone can handle effectively the program of prevention and early diagnosis in cancer, but that the burden must be borne by both.

METHODS AND RESULTS

After 12 years of service it seems logical to review the developments and results of periodic health examinations as inaugurated in the Kate Depew Strang Cancer Prevention Clinics at the New York Infirmary in 1937, and at Memorial Hospital in 1940, noting their progress and studying the results obtained. During this period many changes of procedure have been necessary to meet the increasing demand for the service, but we have always borne in mind the objective, the prevention and early diagnosis of cancer through education. It was necessary first to persuade the public of the necessity of periodic health examinations as the best way to prevent and even to control cancer. That this has been accomplished is shown by the rapid growth of these clinics. At the New York Infirmary during the first year there were 71 applicants. In 1948, 1,100 new patients were examined, and 5,175 return visits were made. At the clinic at Memorial Hospital during the first 13 months 150 patients were registered. In 1948, 3,350 new patients were admitted in the women's division, 1,866 in the men's division, and 339 in the children's department, a total of 5,575 new patients. During the same year 18,824 patients revisited the clinic, making a total of 24,486 visits for 1948. These figures are the best evidence of the enthusiastic response of the public to this attempt to control cancer through periodic examinations.

On the other hand, it was necessary to convince the medical profession that such a procedure could be made a practical part of preventive medicine; for although there was agreement on the principle involved, that examination of healthy individuals would be desirable, still there was definite skepticism as to whether this could be accomplished and still preserve the individual type of medical practice. We solved this by returning patients in need of treatment to their own physicians, in this way in many instances increasing the practice of the average physician through recognition of silent or symptomless lesions at a time when they might yield to adequate treatment.

Our efforts are directed toward carrying out the most complete physical examination that can be given in a clinic. The examination includes a survey of the skin surfaces, nasal and oral cavities, eyes, and ears. Height, weight, and blood pressure are recorded. The chest is examined by percussion and auscultation and by roentgenographic or fluoroscopic methods. Palpation of the abdomen is followed by a pelvic examination which includes vaginal and cervical smears by the Papanicolaou method, with a biopsy of any suspicious lesions. A manual rectal examination is routine on all patients, and a proctosigmoidoscopic examination of all over 45 years of age. Complete blood counts, urinalysis, and serologic test for lues are carried out on all patients at the first visit. This entire procedure is repeated on the annual reëxamination.

As the clinics have grown we have done our utmost to utilize all available technics as aids to accurate diagnosis of early cancer. This has necessitated a vast amount of research into the value of newer methods described; and when these have been found to be practical they have been introduced into the routine examination.

NEW YORK INFIRMARY

The value of statistical reports depends on their relation to previous years, and a single year is of importance only to indicate progress and the degree of expansion necessary for future success. The cancer prevention clinic at New York Infirmary presents several features of interest, and the statistics deserve consideration in that they show the results of a prevention clinic successfully operated in a small space and in close association with a tumor diagnostic and treatment clinic. The number of cases seen here is necessarily limited and the amount of research restricted to the facilities of a general hospital. Nevertheless, in 1947, with these handicaps, 1,356 apparently healthy women were examined in the prevention clinic and 19 cases of cancer were discovered, that is, 1.4 per cent. Fluoroscopic chest surveys were made during the past 5 years on 6,290 patients, about 3 per cent of whom were referred for further X-ray examination. One primary asymptomatic neoplasm of the lung was discovered. This low incidence is easily explained, since cancer of the lung is more frequent in men than in women and the clinic at the Infirmary is limited to women patients. However, there is sufficient evidence of the importance of X-ray examinations of the chest in the diagnosis of early cancer of the lung.

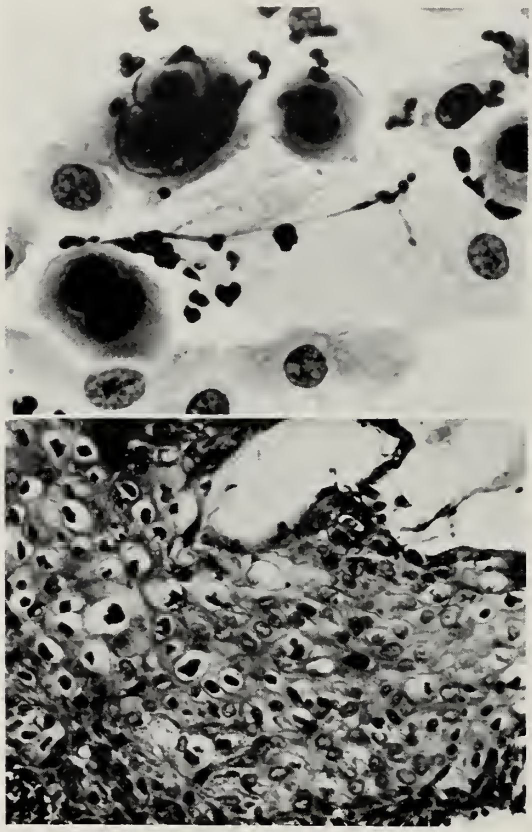
Fig. 1. Vaginal smear from case of carcinoma in situ, above; histologic section of tissue from same case, below.

Memorial Hospital Cancer Center

The Strang Prevention Clinic established in 1940 at Memorial Hospital Cancer Center is maintained as a separate unit forming an integral part of that institution. It presents a field for clinical and statistical research on a large group (see table 1) of presumably healthy individuals from infancy to late adult life.

In the earlier years of the clinic research problems were limited by the facilities, but each year has witnessed the addition of new diagnostic methods to our routine procedure. The first important step was the introduction of the Papanicolaou smear method of examination of vaginal secretions, and this has now become one of the most dependable routine procedures for the detection of early pre-invasive cancer of the cervix (figures 1, 2 and 3).

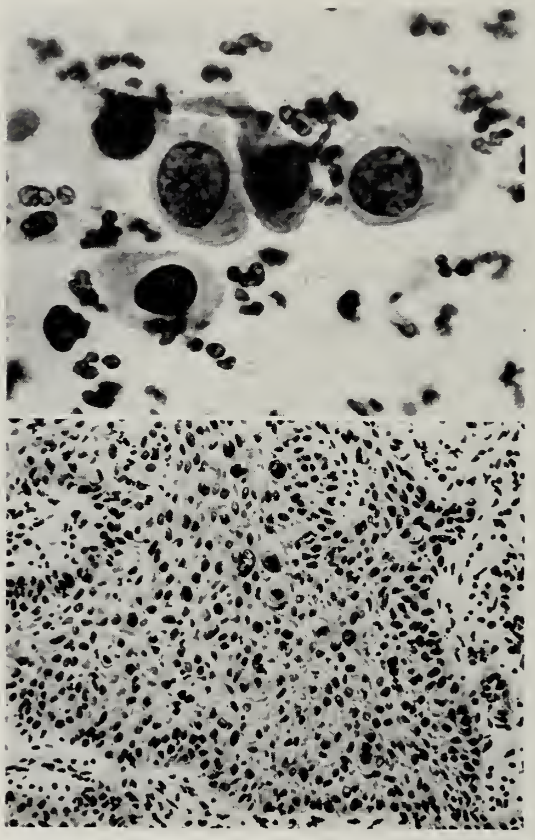
Fig. 2. Vaginal smear from case of carcinoma of cervix, above; histologic section of tissue from same case, below.

The future value of the cytologic test in cancer is still undetermined, but the possibilities seem to be limitless. Within the past two years no false positive has been reported from our laboratory,

TABLE 1

Growth of the Strang Prevention Clinic

1940	25 visits (2 months only)
1941	311 visits
1942	1,112 visits
1943	1,581 visits
1944	2,692 visits
1945	2,227 visits
1946	14,453 visits
1947	19,995 visits
1948	24,486 visits

a fact which indicates the importance of having a well trained observer in this work. We are instituting several research problems on various body secretions, and preliminary reports indicate that some if not all will prove to be accurate aids in the early recognition of cancer of, for instance, the prostate, rectum, bladder, and stomach.

The proctoscopic examination of all patients over 45 years of age was established in the clinic 5 years ago and has proved to be one of the most revealing methods for diagnosing lesions of the colon and rectum. Under the direction of Dr. Deddish of the Rectal Department of Memorial Hospital results were obtained as shown in table 2.

TABLE 2

Proctoscopic Survey of 7,021 Patients

1946–1949

	MALE	FEMALE
Number of Patients	2,985	4,038
Negative	2,720	3,853
Carcinoma	4 (0.13%)	9 (0.2%)
Polyps	258 (8.6%)	173 (4.3%)

Gastric surveys by the Swenson method are carried out on all patients over 45 years of age without gastrointestinal symptoms. Table 3 covers a period of 3 years.

TABLE 3

Gastric Survey; Fluoroscopic Examination of Patients over 45 Years

Total number of examinations	2,858
Negative	2,494
Unsatisfactory or of limited value	272
Incidental findings (hernia, etc.)	37
Indication of regular G.I. series	55
Negative	17
Ulcers, etc	30
Tumors	8
Polyps	5
Carcinoma	1
Myosarcoma	2

Photoroentgen examinations were made through the courtesy of the X-ray Department of the Hospital, under the direction of Dr. Sherman, with results as shown in table 4.

TABLE 4

Photoroentgen Examinations

1947–1949

Total number of examinations	14,044
Positive findings	447 (3.2%)
Carcinoma, primary, of lung	8 (0.057%)
Carcinoma, metastatic, of lung	3
Carcinoma of thyroid	1
Tuberculosis	134
Cardiac disease	25
Miscellaneous conditions	276

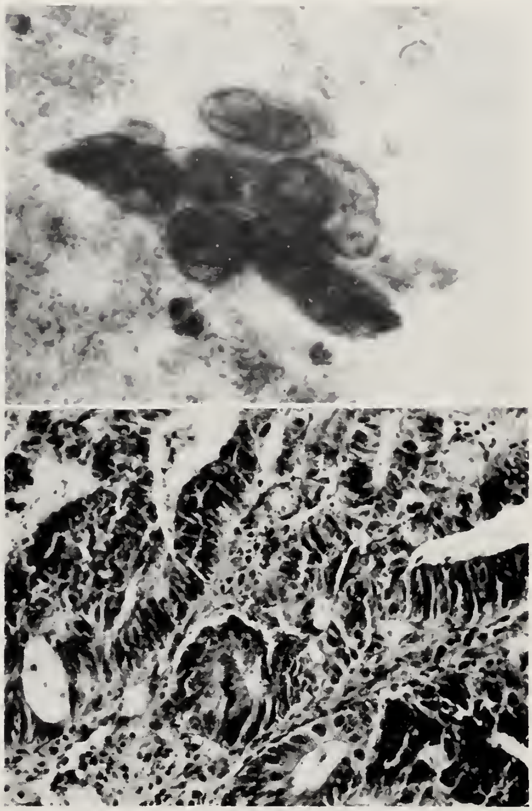

FIG. 3. Smear of rectal washings from case of carcinoma of rectum, above; histologic section of tissue from same case below.

BIOPSIES

In practically all cases of cancer the final diagnosis is made by the pathologist, and for that reason every available technic must be used to obtain tissue for histologic examination. The surgical biopsy is the most reliable method and occupies an important place in our diagnostic procedures. The punch biopsy is favored for all cervical lesions and gives confirmation of results obtained by Papanicolaou smears. In small skin lesions the complete removal of the suspected area is advisable.

TABLE 5

Distribution According to Site

1947

	FEMALE	MALE
Skin	10	8
Cervix and corpus uteri	8	—
Breast	4	—
Rectum and colon	5	3
Ovary	2	—
Stomach	—	2
Prostate	—	3
Thyroid	—	1
Liver	—	1
Salivary glands	—	1
Miscellaneous	5	1

TABLE 6

Analysis of Age Groups

1947

AGE	ATTENDANCE		INCIDENCE OF CANCER	
	Female	Male	Female	Male
0–19	1	1	0	0
20–29	273	164	1 (0.4%)	1 (0.6%)
30–39	1,074	625	3 (0.3%)	0
40–49	1,180	801	13 (1.1%)	5 (0.6%)
50–59	557	377	10 (1.8%)	5 (1.3%)
60–69	149	102	7 (4.7%)	7 (6.9%)
70–79	16	11	0	1 (9.0%)
80+	0	1	0	0

In our clinic the aspiration biopsy is used extensively in the case of many superficial lesions, notably suspected conditions in the breast. In 100 cases of breast lesions so examined by Dr. Scharnagel, positive information as to the nature of the disease was obtained in 98 per cent.

INCIDENCE OF CANCER

With rigid screening of applicants to our clinics we have maintained over the past 5 years an average of 1 per cent incidence of cancer in apparently healthy, symptomless individuals. Tables 5 and 6, for 1947, give the distribution according to site and an analysis of age groups by sex.

The question is often asked as to the number of cases of cancer discovered in return patients. In our records this is about one tenth of 1 per cent (see table 7); many of these patients had first visited the clinic several years previously.

TABLE 7

Incidence of Cancer in Return Patients

1948

	FEMALE	MALE
Number of visits	11,119	3,525
Number of cancers	15 (0.13%)	3 (0.09%)

The opening of a Children's Clinic in 1947 was an entirely new venture. Our main objectives were to recognize early neoplasms in children and to emphasize the habit of periodic health examinations. During the 2 years it has been in operation some interesting facts have been discovered, as shown in table 8.

TABLE 8

Children's Clinic

1947–1949

Total number of new patients	446
Between ages of 6 and 15	302 (63.0%)
Incidence of tumors	
Hemangiomas	12
Other benign tumors	10
Malignant tumor (thyroid)	1
Family history of cancer	303 (68.0%)

CONCLUSION

The lessons we have learned in the past 12 years' experience may be summarized in the single word education as applied both to the public and to the medical profession. The recog-

(*Continued on page 236*)

CURRENT HISTAMINE THERAPY*

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A LEADING textbook in pharmacology and materia medica[1] opens its discussion on the subject of histamine with the following statement: "Histamine is a drug of considerable academic interest but little therapeutic importance." While it still remains a fact that the physiologic ubiquity of this agent outweighs in appeal to the investigator its clinical application, nevertheless it is the expansion of this latter usage that forms the basis of the present review.

That the injection of histamine is a safe procedure in patients adequately surveyed prior to therapy is established by extensive personal experience as well as published reports on the subject. The agent has been administered by me to patients with peptic ulcer, bronchial asthma, urticaria, and other conditions for which its use has ordinarily been considered hazardous, with no untoward effects. The physiologic activity of the drug must be known, the exact nature of the patient's trouble understood, and the dosage so regulated as to be given at subsymptomatic rates. No patient to date has developed peptic ulceration during treatment used and, in patients with known active ulcer, bleeding from the gastrointestinal tract has not been a problem. The amount of histamine therapeutically given is usually less than that ordinarily given in conjunction with gastric analyses. Let me hasten to add that to date I have not used histamine to treat peptic ulcers, although this usage has been suggested[2, 3, 4] but not universally advocated.

The major physiologic role of histamine in its as yet unknown relationship to the problem of allergic and immune mechanisms was first propounded in the pioneer studies of Dale and Laidlaw[5] in 1910. Attempts have been made to show that histamine is the basic factor in producing many of the symptoms of allergic reactions.[6] Therapeutic trials of histamine preparations in allergic conditions have been made repeatedly.[7–11]

Recent development of the antihistamine drugs has given us a new tool for the study of the problem. We are now able to block certain specific histamine effects[12, 13] on various laboratory animals at will. In these test reactions we are thus able to actively interfere with and modify typical allergic and anaphylactic processes by the direct blockage of histamine action. The mass of clinical data that has now been accumulated showing the favorable role of the antihistaminics in the palliative treatment of certain symptoms of allergic disorders may be regarded as further evidence for the role that histamine plays in allergy.

In spite of the apparently close relationship of histamine to anaphylaxis and allergy its specific role is still not ascertained. Code,[14] commenting upon some of the recent controversies concerning the histamine factor, summarized the current status of this problem as follows: "There is ample evidence that histamine does play a role in the symptomatology of many allergic reactions. It is probably not the primary factor involved in the reaction, the release of histamine being secondary to some disruptive process within the cell. It is the investigation of that disruptive process that is the challenge to workers in allergy today. Graña's experiments with Hydatid and Ascaris shock may eventually be of assistance to us in studies on allergy. Under some circumstances, at least, it is apparent that here we have toxic substances which produce damage within cells but may not release histamine. The fact that the allergic reaction does release histamine from these same cells rather indicates that we are dealing with two different processes."

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* Presented at the Regional Meeting of the American College of Physicians in Washington, D. C., February 19, 1949.

This statement by Code should serve to direct our attention to the study of the primary mechanisms of anaphylaxis and allergy, separate and distinct from the symptoms produced by the secondary release of histamine by sensitized cells. It should not detract from the clinical importance of histamine in the etiology of allergic symptoms.

As we turn to the therapeutic application of histamine, we find a very confusing picture indeed. It is true that there are numerous reports of the use of histamine in certain disease states; however, most of these are limited to a small series of cases, and the technics of administration are rarely alike in any two reports. All of the histamine given therapeutically before 1939 was given by the subcutaneous route. Since Sheldon and Horton's first report[15] of the use of intravenous histamine for Ménière's disease, in January 1940, the trend has shifted toward increasing use of various intravenous preparations. Most of the recent reports[16, 17, 18] on these preparations have dealt with its use in different forms of headache.

As our experience with all of the methods of administration of histamine increases, it becomes clear that there are certain conditions for which histamine has a definite therapeutic effect, whereas it is of little or no benefit in other conditions. In addition to this, there is a large group of diseases for which the therapeutic role of histamine cannot yet be determined, and on which much more investigation must be done before any conclusions can be drawn.

Conditions Satisfactorily Treated

Histamine cephalalgia (*Horton's headache*). Histaminic cephalalgia was first reported, and its differentiation from migraine was stressed, by Horton and associates[19] in 1939. At that time it was called erythromelalgia of the head. Characteristically this is a unilateral headache, which usually begins in males in the later decades of life, is of short duration, generally lasting less than an hour, commences and often terminates suddenly, tends to awaken the patient at night one to two hours after he has gone to sleep, and is frequently eased by the patient sitting up or by standing erect. It is associated with profuse watering and congestion of the eye, rhinorrhea or stuffiness of the nostril, increased surface temperature, and often swelling of the temporal vessels of the involved side of the head. "Pain is the outstanding complaint. It is constant, excruciating, burning and boring; it involves the eye, the temple, the neck, and often the face. The pain seems to conform to the ramifications of the external carotid artery. Compression of the involved artery often affords temporary relief."

Although it is difficult to be sure that this condition is due to a release of histamine or a basic sensitivity to the drug, there are two definite clinical relations to histamine: (1) In most typical cases a subcutaneous injection of 0.1 to 1.2 mg. of histamine base will precipitate a typical attack within 30 minutes of injection; (2) in addition to this, gradually increasing subcutaneous doses of histamine, given twice daily, will usually bring about cessation of attacks in a matter of 10 to 30 days. The method of administration is as follows: "The contents of a 1 c.c. ampoule of histamine diphosphate (0.275 mg.) is equivalent to 0.1 mg. of histamine base. The quantity given at each injection is as follows: first injection, 0.25 c.c.; second, 0.30 c.c.; third, 0.35 c.c.; fourth, 0.40 c.c.; fifth, 0.45 c.c.; sixth, 0.50 c.c.; seventh, 0.55 c.c.; eighth, 0.60 c.c.; ninth, 0.65 c.c.; tenth, 0.70 c.c.; eleventh, 0.75 c.c.; twelfth, 0.80 c.c.; thirteenth, 0.85 c.c.; fourteenth, 0.90 c.c.; fifteenth, 0.95 c.c.; sixteenth, 1.00 c.c. If at any time the patient notices slight flushing of the face or any other symptoms indicating subjective or objective response to the drug, the next dose should be reduced 50 per cent. An attempt is then made to increase the dosage again."[20] Eventually a dose will be found at which symptoms will invariably be produced. This, then, will be the tolerance dose for that patient. If this point is not reached until the entire 1.0 c.c. is given, then 1.0 c.c. is the tolerance dose, and I never give more than this dosage to any patient.

In most cases, by the time the tolerance dose is reached, the symptoms will be improved or entirely alleviated. The problem then will be to prevent recurrence of the headaches. This is accomplished by gradually decreasing the frequency of injections so that the tolerance dose is given once daily, then every other day, then twice a week, etc. Eventually I find that the patient will be able to stop the drug entirely or will require an injection at regular intervals, such as once every 7 to 14 days.

Occasionally symptoms may recur after several months or a year or two, and repetition of the original "desensitization" régime will usually again achieve satisfactory results.

Since September 1945 I have had the opportunity of treating 20 patients with histaminic cephalalgia. Six of these patients had their onset before the age of 20, and 5 were in females. I have modified my method of therapy from that of Horton's as given above, by starting all patients on intravenous histamine. I have found that in most cases marked relief of symptoms is obtained within several days of onset of therapy. In addition to this, 20 per cent of patients have required no subcutaneous therapy at all.

The solution for intravenous administration used in all cases is a specially prepared one,* each 100 c.c. of which contains 0.55 mg. histamine diphosphate (equivalent to 0.2 mg. histamine base) and 0.9 Gm. sodium chloride. Each treatment is given as soon after breakfast or lunch as possible, and antacid tablets are chewed continuously during the injection in an effort to prevent any possible excess gastric acidity. The entire duration of the treatment is 1 hour; thus it is possible for the patient to be treated in the office or clinic, on an ambulatory basis, and to return to work immediately. Comfortable beds with proper lighting are provided, since most patients prefer to read during the course of the injections. In order to make the procedure as attractive as possible, it is advisable to pay attention to small details, such as the use of a small (22-) gauge needle and infiltration of the skin overlying the vein with a 2 per cent procaine solution. This will help to alleviate the fears of any needle-shy patient. One of the most important details is to prevent the solution from running in too fast following venipuncture. The proper rate to begin each injection is approximately 5 to 10 drops per minute. The rate is then gradually increased to the point that will barely produce a mild flushed or full sensation in the head. If this rate is exceeded, a typical attack of headache can be produced easily. After several treatments most patients are able to receive it at a rate of 40 to 60 drops per minute. I have found that my results are just as satisfactory whether the patient receives 25 or 300 c.c. of the solution, as long as they receive their particular tolerance dose for the 1-hour period.

The intravenous injections are given daily for 4 days, then every other day. The patients are instructed in the proper technic of subcutaneous injections and are allowed to give these to themselves at home as soon as they are satisfactorily "checked out" by the nurse. As soon as definite improvement is obtained, the intravenous injections are discontinued and the subcutaneous "desensitization" is completed.

Ménière's disease. Histamine has been administered intravenously for acute attacks of Ménière's disease since 1940.[15] Since then it has been used extensively[21] and has been found to be quite satisfactory. Several different solutions have been used in an attempt to avoid introduction of the sodium ion. Theoretically normal solution of potassium chloride as a vehicle should be excellent; however, clinically this often causes a severe burning sensation along the course of the vein. At the present time I find that 5 per cent dextrose in distilled water is the best vehicle. One ampule of histamine diphosphate (2.75 mg. per c.c.) is diluted in 500 c.c. of dextrose and injected as described above to the point of flush, which is usually 50 to 60 drops per minute. Treatments are given daily for 1-hour periods until relief is obtained, which usually results in 3 days. The patients are then maintained on subcutaneous injections in an effort to prevent recurrences.

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* Generous supplies have been made available for use in the Headache Clinic of George Washington University Hospital by Dr. Naurice Nesset of the Baxter Laboratories, Morton Grove, Ill.

The results in overcoming the acute attacks are much more satisfactory than the prevention of attacks. There is much divergence of opinion as to the proper mode of therapy once the attack has terminated. Atkinson[22] maintains that he can tell by means of a properly performed histamine skin test which patient should receive subcutaneous histamine and which should receive nicotinic acid and other members of the vitamin B complex. Rainey[23] also champions the use of intravenous histamine but doubts the value of subcutaneous histamine in preventing future attacks.

Migraine headache. In any discussion of the treatment of migraine two points must be clarified at the outset: The first and more important is that a common meeting ground must be set as to the definition of migraine. Many patients with a unilateral, periodic throbbing vascular type of headache do not have typical migraine. In addition to the above features, typical migraine should be associated with two or more of the following features[20]: (1) gastrointestinal dysfunction; (2) prodromes of scotomata or other cerebral disturbance; (3) hemicrania among at least 2 other members of the family; (4) duration of the typical attack for 36 hours or more if no medication is given; and (5) complete freedom from pain at intervals. The second point is that the treatment of the case must be differentiated between that of treatment for each individual attack and that for prevention of attacks. Although an occasional patient will volunteer that histamine may abort an individual attack, the primary use of histamine in migraine has been in an attempt to prevent or reduce the incidence of the attacks.

Horton's early report[20] on the use of histamine in the treatment of specific types of headache showed that subcutaneous injections were not very satisfactory in the treatment of migraine; however, he later reported very good results with intravenous, followed by subcutaneous, injections.[24] Butler and Thomas[16] have obtained apparently excellent results with the prolonged intravenous administration of increasing doses of histamine. They give an intensive course of daily treatments at each of which 500 c.c. of saline is given, in which up to 2 mg. of histamine base is dissolved. The injection takes them 3 to 8 hours to complete because of the tendency to precipitate a severe attack if the solution is allowed to flow too rapidly.

My results with the above-described 1 hour ambulatory intravenous injections, given every other day, have proven quite satisfactory. Among a group of approximately 300 patients so treated, many are now working steadily after the initial course of treatments extending over a period of 1 to 2 months. Many have maintained their improvement by continuing to receive an intravenous injection at intervals of 7 to 10 days, while some are controlled on maintenance subcutaneous therapy. My over-all results with histamine used in the combination that seems to best suit the individual patient show approximately 75 per cent improvement.

Photophobia. Many patients with typical or atypical forms of migraine headache complain of severe photophobia, preceding or accompanying each attack. Some also have photophobia during the intervals when there is no headache. Upon close observation of these patients, the information was frequently volunteered that, as the migraine attacks became less frequent following proper histamine therapy, the photophobia also improved. I have had the opportunity of treating with intravenous and subcutaneous histamine 3 patients whose main complaint was that of severe photophobia. One of these also had occasional headaches of migrainous type but the other 2 had only an occasional ordinary headache. All of these reported excellent relief from their photophobia after treatment.

This observation brings up the challenging problem of investigating the effects of histamine on other forms of paresthesia, paresis, and even epileptiform seizures that occasionally accompany the migraine state. Observations along these lines will form the basis of a future report.

Post-traumatic syndrome. Vasodilating headache is a prominent feature of the post-traumatic cerebral syndrome. The exact mechanism of production of this disorder is still not entirely clear, and it is generally agreed[18] that in most cases there is a large functional element at work. Friedman and Brenner[25] were able to reproduce, in 13 of 20 patients, the same headache that these patients complained of by injecting 0.1 mg. histamine intravenously and brought up the question of the use of histamine in the therapy of this condition. Horton[26] stated that he has been agreeably surprised with the results obtained with intravenous histamine.

I have had the opportunity of treating 5 patients with the typical post-traumatic cerebral syndrome with daily intravenous histamine as described above. Two of these patients had their head injuries 3 years prior to treatment and 1 5 months before, while in 2 therapy was begun within 2 weeks of the accident. Although headaches could be produced by rapid histamine injection intravenously in all cases, they were able to tolerate the injection at a much more rapid rate than could migraine or histaminic cephalalgia patients. The first observation volunteered during treatment was that there seemed to be a marked clearing of the sensorium, as if a cloud had been lifted off the head. Three patients noticed definite relief of symptoms during the first week of therapy, whereas the improvement in the other 2 was quite gradual but progressive over the course of several months. The average number of intravenous injections was 15. Subcutaneous therapy was not needed in any of these cases.

Acute and chronic urticaria. Dermatologic reactions following oral or parenteral administration of therapeutic agents can often be extremely annoying and at times serious. Some of these reactions will spontaneously subside within 2 weeks, but many will persist for months. Two of my patients had symptoms dating back over a year from an injection of penicillin. The newer antihistaminic preparations usually control symptoms temporarily, but their use does not hasten recovery. I have actually gained the impression that in at least 2 patients antihistaminic drugs probably caused an increase in the duration of the eruption.

Several vasodilating agents have reportedly been of great benefit in alleviating postmedication urticaria. Among these are intravenous nicotinic acid,[27] intravenous procaine[28, 29] and intravenous histamine.[30, 31] During the past year 14 patients have been adequately treated with intravenous histamine for urticaria. Of these, 5 were treated within 1 week of the onset of symptoms and 9 after a lapse of at least 3 months. Of the 5 acute cases, 1 followed injection of tetanus antitoxin, 1 the inhalation of penicillin dust, 1 the inhalation of penicillin aerosol, and 2 the intramuscular injection of penicillin in sesame oil. These patients had failed to notice appreciable benefit from epinephrine, calcium, or antihistaminics. In all, histamine was administered intravenously daily for 3 days. Each injection was preceded by the injection of 30 mg. of benadryl intravenously in an attempt to prevent acute exacerbation of symptoms. Then the entire 500 c.c. of the above described solution containing 1 mg. of histamine base was rapidly injected. It was possible to complete the treatment within 35 to 60 minutes without incident.

In each case adequately administered complete recovery was obtained within 24 hours after the last injection. No subcutaneous therapy was used in these cases.

The etiologic agents in 7 of the 9 patients treated 3 months or longer after the onset of symptoms were as follows: intramuscular injections of pencillin in 4, oral salicylate therapy in 1, dust sensitivity in 1, and premenstrual typical migraine in 1. In 2 of the chronic cases severe urticaria often resulting in angioneurotic edema of the eyelids occurred, but no definite etiologic agent could be found.

All patients received the combination of intravenous and subcutaneous histamine as described above. The intravenous treatment was continued for an average of 6 weeks. Although results were not as striking or as rapid as in the acute cases, definite improvement was obtained in all cases. Although the dosage of antihistaminics required to control symptoms was markedly reduced, 3 patients continued to require an occasional dose for solitary "hives." Subcutaneous histamine was gradually discontinued after 3 months in 6 patients, but the other 3 still require regular injections at 3- to 10-day intervals to prevent recurrences.

MISCELLANEOUS CONDITIONS

Sudden nerve deafness. Hallberg and Horton[32] reported 4 cases of sudden nerve deafness presumably due to edema of the cochlear portion of the labyrinth, in which they administered histamine intravenously daily. One patient treated within 24 hours of the onset of symptoms obtained complete recovery after 12 days. Two patients treated several weeks after the onset had only fair results, and the 1 patient for whom treatment was instituted 9 months after the onset showed no improvement. It is considered that this condition is a phase of Ménière's syndrome, for which it is known that the earlier treatment is instituted, the better the prognosis for recovery of hearing.

Arterial insufficiency. A recent report by Mufson[33] claims considerable benefit for symptoms of obliterative peripheral vascular disease following biweekly infusions of histamine. Five hundred c.c. of a solution as described above is injected under positive pressure into the femoral artery at a rate that will produce erythema of the extremity without producing erythema of the upper half of the body. As walking tolerance improves, the interval between infusions is gradually increased.

Hemophilia. While using intravenous injections of histamine to treat patients with migraine, Butler, Thomas and Sanford[34] noted that the blood coagulation time was shortened, seemingly because of increased platelet activity. Because of the fact that abnormal coagulation in hemophilia is thought to be due to qualitative platelet defects, histamine was used to treat 5 patients with active hemophilia.[35] In each case intravenous injections of histamine proved effective, halting the bleeding, causing a return of a sense of well-being, and bringing about a decrease in the coagulation times of the whole blood, plasma A (containing platelets) and plasma B. The suggested dosage ranged from 0.3 mg. to 1.0 mg., with injections approximately daily for 3 or 4 days. At the present writing I am treating my first patient with active hemophilia by this method.

Temporal arteritis. Temporal arteritis, although still a rare disease, is being recognized more frequently since its description in 1934 by Horton, Magath and Brown.[36] Protas and Saidman[37] reviewed the pathologically proven cases and stressed the incidence of permanent blindness in this disease. The fact that the pain of temporal arteritis resembles that of other vascular types of headaches led me to treat a recent case with intravenous histamine.[38] The patient's pain was abating when therapy was started and was completely gone after 2 days of treatment; however, daily injections were continued for 33 days to study the effect on the patient's blindness. Although objective evidence of improvement was lacking, the pathologic changes did not progress as far in this case as is usual. A recent report by Horton[26] describes the use of histamine in 1 of his patients, in whom it was quite successful in controlling symptoms. Because this patient did not have retinal involvement, he could not evaluate the effect of histamine on the blindness of temporal arteritis.

Multiple sclerosis. No discussion of histamine therapy would be complete without a mention of its effect on the ever-present problem of multiple sclerosis. Much enthusiasm followed the original report of the use of intravenous histamine in 102 patients by Horton et al[39] in 1944. Although their results were encouraging, subsequent reports[40, 41] were less optimistic. Upon investigation of the problem, I found that the pathologic findings in multiple sclerosis did present certain features of allergic reaction and of vascular occlusion. Because of the known relationship of histamine to allergy and its effect on cerebral blood flow, it seems that this agent would be worthy of trial in multiple sclerosis. Accordingly, I have treated 3 patients with far advanced lesions by daily intravenous histamine for periods exceeding 2 months each. In no case have I seen any objective changes. One patient reported a marked subjective feeling of well-being during treatment, but because of the known euphoric attitudes that these patients may present this result is probably not significant.

Hay fever, vasomotor rhinitis, and asthma. Specific desensitization with offending allergens or removal of certain allergens from the patients' environment may fail to lead to the desired therapeutic result in cases of allergic rhinitis. Although the new antihistaminic preparations usually control symptoms for short periods of time, they do not change the basic allergic sensitivity of the patient. Farmer et al[8, 9] report encouraging results in cases of pollinosis following a prolonged series of injections of histamine subcutaneously. They stress the fact that one must begin with a small dose (0.1 gamma) and increase it cautiously. There apparently is no method of ascertaining the amount of histamine needed for the individual patient, other than following the clinical course. Eden[42] also reported excellent results using Hapamine (histamine azoprotein) in the treatment of allergic rhinitis and asthma in children. I have had extensive personal experience with the use of histamine and Hapamine given as a course of subcutaneous injections for pollinosis and asthma. All patients had had extensive therapy with allergens, to which they apparently were definitely sensitive, prior to institution of histamine therapy. Only those patients who obtained no relief were included in the histamine series. Although my results have not been as spectacular as those reported above, I have had many satisfactory responses in this group of patients. Much more data must be gathered before I will be able to analyze properly my results.

SUMMARY

1. Extensive clinical use of histamine by subcutaneous and intravenous injection has established the fact that it is a safe drug to use if given in proper dosage. No untoward effects have been noted even in the presence of peptic ulcer, bronchial asthma, or urticaria.

2. Although the exact relationship of histamine to the problem of allergy is still undetermined, the drug seems to be a basic factor in producing many of the symptoms of allergic reactions. The manner in which the antihistaminics block certain allergic reactions is confirmatory evidence for the role of histamine in allergy.

3. The technic of subcutaneous and intravenous administration of histamine as given in our clinic is described. A plea is made for standardization of methods of administration in order to avoid histamine reactions and to enable workers in this field to accurately compare their results.

4. The several conditions for which we now find histamine to be of definite therapeutic benefit are histaminic cephalalgia, Ménière's syn-

drome, migraine headache (selected cases), nonspecific photophobia, post-traumatic cerebral syndrome, and acute and chronic urticaria.

5. The clinical conditions in which histamine is now being given further therapeutic trial, and in which its ultimate value cannot as yet be determined, are sudden nerve deafness, arterial insufficiency, hemophilia, temporal arteritis, multiple sclerosis, hay fever, perennial vasomotor rhinitis, and bronchial asthma.

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X-RAY TREATMENT IN CERTAIN NONMALIGNANT CONDITIONS

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SINCE their discovery by Roentgen in 1895 X-rays have been used and experimented with in the treatment and cure of nearly all the ills to which flesh is heir. A graph of the popularity of X-rays since this earliest period shows sharp fluctuations. The unjustifiable hyperenthusiasm of the early 20th century was followed by suspicion, distrust, and then horror, due to the seriousness of the sequelae in treatment with unprotected and uncalibrated equipment.

In the thirties tube and transformer improvements, along with scientific and accurate filtration and depth dose measurements, became available and were accepted with relief and gratitude by the radiologists. By this time dosages could be charted with utmost assurance as to the amount of radiation delivered to the skin and at any predetermined depth. The variable standard of the "threshold erythema dose" was supplanted by the well defined half-value layer which is based on an ionization measurement and is independent of skin pigmentation, age and elasticity.[1]

In the past ten years the tremendous advances made by chemotherapy and the antibiotics has seemed to dim the importance of X-ray therapy for inflammatory conditions. In this paper an attempt will be made to present and justify the present trend back to radiotherapy as a valuable weapon in many inflammatory conditions. Briefly also will be mentioned its use in some other conditions, especially myasthenia gravis, localized lymphatic hyperplasia, calcareous tendonitis, verrucae, and keloids. Three reasonable answers can be given to the question, Is there a place for X-ray treatment nowadays with all our new sulfonamide derivatives and the ever-increasing number of antibiotics?

First, there are no dangerous reactions to X-rays when administered by a competent physician. Not only is the dosage low, but the protective features used to guard normal adjacent structures are rigorously adhered to. Depth doses can be regulated by kilovoltage, distance, and filtration of the rays to obtain the maximum effect at a desired level at or below the skin. Second, there is no chance of producing a resistant strain of organism. Bacteriologists especially can appreciate this, since they have seen so many organisms undergo apparent desensitization to one after another of the sulfonamide drugs and the antibiotics. Third, it frequently works when the other methods do not.

The mode of action of X-rays on tissues still awaits solution. So-called histamine-release has been postulated along with many other theories. Probably Desjardin's theory[2] is as reasonable as any. Most investigators are now convinced that the primary effect is on the cells that are especially radiosensitive, such as the leukocytes and young reproducing cells. Cells that are actively dividing are more sensitive than cells in the resting phase. Any factor which increases the rate of mitosis or hyperplasia tends to increase the radiosensitivity. Of the different kinds of cells, the lymphocytes in the spleen, lymph nodes, tonsils, and circulating blood are the most sensitive. When a structure containing many lymphocytes is exposed to even a moderate dose of X-rays, many of these cells degenerate and disappear. After a variable period of time the remaining lymphocytes which have not been injured beyond recovery multiply, and depending upon the dose of rays partial or complete restoration of these cells may occur. Routine localized radiation therapy in benign conditions seldom if ever produces permanent changes in the blood or hematopoietic organs. However, general body radiation may cause an injurious diminution of white cells and even of erythrocytes.

In inflammatory conditions it is believed that the early use of X-rays tends to cause the inflammation to subside. If such treatment is given later, the process of suppuration is hastened. The analgesic effect of X-rays in inflammation is far too regular to be regarded as coincidental. The importance of relief of pain in these conditions should be stressed.

TREATMENT

In tuberculous adenitis X-rays were used for many years until the phase of antibiotic therapy came in with such enthusiasm. However, more recently still, streptomycin and several of the other drugs have not worked as well as had been hoped, and X-ray treatment is now being returned to with more optimism. It is hazardous to use a drug which does not always work, and the possibility of a drug-fast organism being produced in the patient is especially undesirable when a completely benign treatment, such as X-rays, is available. No attempt is made to destroy the tuberculous process directly. The object is to cause a slight local aseptic inflammatory reaction which will aid the general defensive reaction of the body and later increase the normal fibrosis of repair.[3]

In chronic lymphoid hyperplasia of the pharynx, especially in the child who is either too young or debilitated from chronic infection to undergo surgery, the use of X-rays seems especially suitable. This child frequently has recurrent sore throats with involvement of his ears and mastoids, due to occlusion of the eustachian tubes by lymphoid hyperplasia. If the causes of the condition are lymphoid in origin, valuable results are to be expected. Conversely, if they are not due to lymphoid hypertrophy, the results to be expected must vary with the individual cellular sensitivity. Mature fibroblasts are not sensitive. During the War, aero-otitis interfered seriously with the training of flyers and with their fitness for combat duty. Similar difficulty was noted in the submarine service, in those subjected to pressure depths below the surface. Many of these men could be quickly and easily cured either by irradiation or direct application of radon. As to the use of local radon emanation, applied directly to the eustachian orifice, as was so commonly used, we should extend a word of caution.[4] Because the normal eustachian orifice is so small, the possibility of an overdosage of radiation, which is so much more easily done with radon than with X-rays, should be definitely considered. The roentgen dosage per minute of some of these radon applicators is higher than some radiologists consider safe to be used in direct contact with tissues, and the possibility of subsequent scarring in future years must be considered. It is doubtful that, if scarring should occur from overdosage with radon, the results would be apparent or could be verified for some years to come. X-ray therapy directed in the usual manner is not as well defined as radon therapy but can be directed to the entire nasal pharynx and, if necessary, the oral pharynx.

In subacute and chronic sinusitis,[5] with freely draining sinuses of long duration, X-rays have proven beneficial to a large percentage, and in the hands of a trained man they will do no harm in the cases in which they are not beneficial. X-rays need not be used in either acute or atrophic sinusitis. In acute cases the usual course of events is complete resolution within a reasonable length of time. In atrophic cases the membrane is not involved with cells which could be expected to be radiosensitive.

In rheumatoid spondylitis, the use of X-rays has not been appreciated. The disease is progressive, painful, and incapacitating. Although X-ray therapy is not promised as a cure, the relief of symptoms is real and the patient is frequently able to lead a more normal life for several years; fusion of the spine, if it does occur, takes place in a much less painful manner.[6] The analgesia obtained in these cases is apparently the result of relief of muscle spasm. Stiffness due to muscle spasm decreases and function is improved. Evidences of improvement are reduction of symptoms, increase of spine motion and chest expansion, relief of muscle spasm, gain in body weight, decrease in sedimentation, decrease in pulse rate, and return to gainful occupation. If the joints are not frozen or completely fused they may get relief of all muscle spasm. If ankylosis has occurred and the joints are rigid, no changes can be expected. If the rigidity is due to muscle spasm alone complete range of motion is frequently obtained. The results show a symptomatic relief of pain in at least 75 per cent of the cases. Objective improvement is noted in 50 per cent, as evidenced by better chest expansion and improved flexion and extension of the lower spine.

Subacute thyroiditis has been described[7] as a frequently overlooked entity which is chronic, annoying to the patient, and although benign in tending to remit spontaneously, its resolution and cure can be very much hastened by the use of X-rays. Associated dysphagia, ear pain, and localized tenderness, especially in the female, is characteristic. Three to 4 X-ray treatments, given every other day, will usually give complete relief. Both the medical and surgical sections of the Cleveland Clinic believe that the indicated therapy in thyroiditis is by X-ray.

In treating inflammatory conditions of the skin by roentgen rays, radiologists do not use the massive doses used in cancer treatments. Roentgen therapy of chronic inflammation is far different from the therapy used in acute cases. In chronic cases it is and can be given over a longer period of time. Clinical indications are that inflammatory lesions respond to radiation in proportion to the degree of leukocytic infiltration. Further, it must be emphasized that inflammatory lesions are most benefited during the stage of infiltration rather than during the suppurative stage. Of the cutaneous diseases that are amenable to radiation, the majority can be cured or improved by a quantity of radiation that will have no injurious effect on the skin. In general, prolonged treatment is avoided in benign conditions. If a disease, usually amenable to a prescribed amount of radiation over a given period of time, fails to respond favorably to such treatment, it is customary to discontinue the radiation.[8] While X-rays are one of the most efficacious therapeutic agents in the management of acne vulgaris, there are few other conditions where roentgen rays have been misused to so great an extent. It is neither necessary nor advisable to treat every case of acne with X-rays. There are other safer, easier, and more economic modalities. However, in those cases that do not respond after a reasonable time to good medical treatment, judicious X-ray therapy offers a treatment that is associated with safety, and the results are reasonably prompt and permanent. There is one type of acne which should be treated early, and this is the type which is associated with deep-seated scarring and induration and is exceedingly disfiguring. Every additional week of the disease means a few more scars.

In the noninflammatory group, we can consider myasthenia gravis. This condition will usually respond to 4 or 5 treatments over the thymic area. If there is a mass visible by film studies, it should first be surgically excised and then X-ray treatment should be used if there is not great relief or if the tumor could not be entirely removed. The level of prostigmine dosage necessary is usually decreased following X-ray treatment, but in any case the symptomatic improvement in these people is frequently dramatic.

Calcareous tendonitis of the shoulder girdle can be one of the most disabling and painful conditions encountered. Roentgen therapy in acute cases is easy and economical to administer, and a single exposure frequently affords rapid relief.[9] The presence or absence of calcification within the bursa need not be the deciding factor as to whether X-ray treatment should be given or not, although it has been shown that calcification may decrease following X-ray therapy. In chronic stages, in which the outstanding symptom is restricted mobility, results are less dramatic. The changes in this latter state are the result of fibrosis, and adhesions and radiation will have little effect unless some of the pain in the general area of the shoulder is due to nerve root irritation. This radiculitis may be due to nerve involvement at the neural foramina at the lower cervical or upper dorsal levels. In these cases, an analgesic effect may be obtained.

A plantar wart can incapacitate an otherwise healthy person, and surgical excision may leave a scar which is more sensitive than the original lesion. If the condition cannot be attributed to and cured by orthopedic means, X-ray treatment is indicated. The localized pain, which is so frequently complained of, is usually relieved after the first treatment and is absent by the third treatment. Because of the thick horny skin overlying the lesion, relatively larger doses are necessary.

Treatment of keloids by X-rays, especially the recurrent type following local excision, is by now fairly well publicized.[10] In this condition the overgrowth is due to a tendency of the rapidly growing fibroblastic cells to heap up and involve some of the nerve endings. The preferable time to treat a keloid is immediately after excision. However, following the normal surgical closure of skin the imminence of keloid formation is frequently noted and can be guarded against by X-ray treatment. Even if the keloid is old, if there is local hyperesthesia of the scar and the usual pink blush, then X-ray treatment will at least prevent further hyperplasia at this point and will decrease the local tenderness due to the involvement of the nerve endings. At the present time the best cosmetic effects can be produced by reëxcision of the scar, careful approximation, and immediate use of X-ray treatment, that is, within 24 hours of the operative procedure.

This discussion has been brief and sketchy but is intended only as a general indication of the varied types of cases in which X-rays may be used to advantage. Radiologists approach a discussion of this type with certain misgivings or even apprehension because of the possible inference that they consider X-ray therapy a cure-all. It is true that they are enthusiastic, but they believe that the use of X-rays for benign conditions has been underestimated and only partially utilized. It is hoped that the use of X-rays will be tried more frequently in recalcitrant cases. Judiciously used it will do no harm in the cases in which there is no benefit.

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RECOVERY OF A CASE OF PSITTACOSIS FOLLOWING AUREOMYCIN THERAPY*

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PSITTACOSIS infection in man formerly resulted in a severe prolonged pneumonia with a reported case fatality rate sometimes as high as 36 per cent.[1] Recently clinical cases have been treated with penicillin with apparently effective results.[2, 3, 4] Chloramphenicol (chloromycetin) and sulfadiazine each have been shown to prevent deaths in laboratory mice after experimental inoculation with psittacosis virus.[5,6] Recently aureomycin also has been shown to prevent deaths in mice and developing chick embryos after experimental infection[7, 8, 9] with this agent. In 3 cases of human psittacosis Brainerd et al[10] have reported favorable results with aureomycin after an apparently unfavorable response to repository penicillin.

As described clinically the disease is manifested principally as a pneumonitis and characterized by headache, malaise, dry nonproductive cough, chills, and usually physical signs of pneumonia. The blood leukocyte count seldom exceeds 12,000 cells per cu. mm. of blood, and a roentgenogram of the chest during the acute stage usually reveals evidence of pulmonary disease. The duration of fever in 17 sporadic cases recently studied ranged from 6 to 60 days, with the median case having 17 days of fever.[11] Etiologic diagnosis may be made by (1) isolation of the virus from the sputum or body tissues, or (2) 4-fold rise in titer of complement fixing antibodies during the course of pneumonitis compatible with the described disease. Primary atypical pneumonia and Q fever resemble psittacosis clinically and can be differentiated with certainty only by laboratory tests. In both these diseases aureomycin appears to be effective therapeutically.[12, 13, 14]

A major difficulty in evaluating specific therapy in psittacosis is to establish an accurate diagnosis, since the cause of the disease can be determined only by serologic studies or virus isolation. Another difficulty of evaluation may arise if 2 or more antibiotics are employed in the therapy of the same case.

The development of psittacosis in a patient who was observed during the entire course of illness afforded an opportunity for adequate diagnostic tests and for observation of treatment with aureomycin, the only antibiotic used.

Report of Case

The patient was a 53-year-old pharmacologist employed at the National Institutes of Health who was admitted to Veterans Administration Hospital, Washington, D. C., on May 7, 1949 with the chief complaint of fever and malaise. He had been well until the morning of admission, when he awoke with slight headache and fatigue which gradually increased in severity during the day. In the afternoon he reported an oral temperature of 39.2°C. In his recent work he had been indirectly exposed only to experimental syphilis and serum from patients with hepatitis. There had been no exposure to birds known to be infected with psittacosis, but he had been a visitor in the home of a friend who owned a single parakeet and had sat for some hours in the room which harbored the bird. This bird showed no signs of illness and could not be secured for examination. About 1 week before admission, the patient had been in Atlantic City, New Jersey, and while watching pigeons being fed was exposed to them flying and fluttering about his head and shoulders. The past history revealed that in 1917 and 1920 he had had an operation on each knee for "floating cartilage" and had had occasional attacks of pain in them since. In 1940 he had had Q fever during an outbreak at the National Institutes of Health. In 1948 he had had two attacks of rather severe respiratory infection not specifically diagnosed. The patient gave no history of psittacosis or lymphogranuloma venereum infection at any time in the past. The family history was noncontributory.

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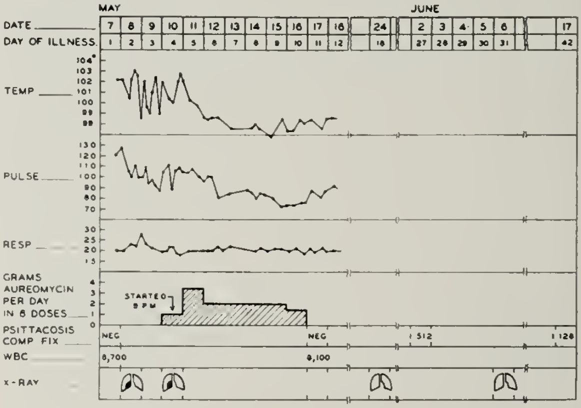
On physical examination the general appearance of the patient was that of an acutely ill, well developed, well nourished white man of the stated age. The oral temperature was 102.2°F., the pulse rate 120 per minute, the respiratory rate 22 per minute, and the blood pressure 120 mm. Hg systolic and 76 mm. Hg diastolic. The nasopharynx was moderately injected. At the base of the right lung posteriorly many coarse rales were heard, but otherwise examination of the chest and abdomen revealed normal findings.

On the day following admission, May 8, the roentgenogram of the chest revealed an infiltration consisting of linear strands having a honeycomb appearance in the right cardiophrenic angle. Examination of the blood showed 4,220,000 erythrocytes and 8,700 leukocytes per cu. mm. There were 13.5 Gm. of hemoglobin per 100 c.c. of blood. A differential leukocyte count showed 70 per cent neutrophiles, 26 per cent lymphocytes, 2 per cent monocytes, and 1 per cent eosinophiles. Urinalysis showed a specific gravity of 1.011, very faint trace of albumin, and no sugar. A blood culture on May 8 revealed no organisms. Serum taken on admission and tested at the National Institutes of Health was negative in the complement fixation test for psittacosis and Q fever and in the agglutination test for brucellosis and tularemia. The Kahn reaction was negative. No acid-fast bacilli were seen in repeated stained smears or grown in cultures of the sputum.

Initial treatment consisted of bed rest and the use of salicylates and codeine. For 3 days following admission there was essentially no improvement. The temperature varied from 99° to 103°F., and the patient had several chills. He had a dry cough but produced very little sputum. The percussion note at the right lung became impaired, and the breath sounds were diminished. A roentgenogram of the chest on May 10 showed no change from the one taken 2 days earlier. Cold agglutination tests on this day were negative. At 6 p.m., May 10, 3 days after admission, and about 80 hours after onset, aureomycin therapy was begun on the presumptive diagnosis of either atypical pneumonia, psittacosis, or Q fever (chart 1). A total of 14 Gm. was given in the succeeding 5 days divided into 0.5 Gm. every 3 hours for the first 24 hours and thereafter 0.25 Gm. every 3 hours for the remaining 4 days. The temperature began to decline after the commencement of therapy, and 30 hours later it regained a normal range and remained there during the rest of the hospital stay. There was a gradual and progressive diminution in abnormal physical findings in the chest following the start of the therapy, and 10 days later the chest was clear. Concurrently symptoms of headache and malaise disappeared and the patient felt much improved. Two days after institution of the therapy the patient had rather severe nausea and vomiting lasting 8 hours.

CHART 1

Clinical Chart of Psittacosis Case Treated with Aureomycin



The leukocyte count on May 17, the 11th day of illness, was 9,100 cells per cu. mm. of blood, and the differential was essentially unchanged. Serologic examinations on the same day for Q fever and psittacosis were again negative. However, serum taken June 2, the 27th day after onset, fixed complement in the presence of psittacosis antigen in a dilution of 1–256. This indicated the appearance of psittacosis antibodies in the serum. Complement fixation test for Q fever, typhus fever, and Rocky Mountain spotted fever were negative, as were agglutination tests for brucellosis and tularemia. On May 24 the X-ray film revealed complete resolution of the pneumonic process, and the final X-ray film on June 6 confirmed this. The cold agglutinin test on June 2 was negative. Two weeks after admission and 4 days after cessation of therapy there was an onset of simple diarrhea lasting several days which subsided without specific treatment. No pathogens were cultured from the stool. There was also an exacerbation of pain and swelling of the right knee which the patient stated had occurred from time to time since the operation on it 32 years previously.

Because of orthopedic consultation and observation, the patient was not discharged till June 20, 1949, 45 days after admission.

After the patient returned to work, June 29, an intradermal test with the commercial "lygranum S.T." was done. A wheal 4 mm. by 6 mm. surrounded by an erythematous area was present at the test site 48 hours afterward, but there was no wheal at the control site. A second test on August 8 produced a wheal 3 mm. by 5 mm. in size. Serum taken at this time fixed complement with psittacosis antigen in a dilution of 1–32.

Very small amounts of sputum were obtained on the third day and the eleventh day of illness, but efforts to recover psittacosis virus by inoculation of mice failed in both instances, possibly because of contaminating bacteria in the sputum which were not sufficiently inhibited by antibiotics. Filtered suspensions of sputum also failed to show evidence of virus. There was no evidence of the development of influenza A, B, or A′ antibodies in his serum as judged by the inhibition of chick red cell agglutination test.

Comment

The case report here presented strongly suggests that the administration of aureomycin favorably influenced the course of the disease. The prompt defervescence to a normal range within 30 hours of the beginning of specific treatment brought the duration of fever to 5 days, an unusually short time interval for human psittacosis. Aureomycin was selected among the antibiotics because of its reported effect in primary atypical pneumonia, psittacosis, and Q fever. At the time of treatment the etiology of the pneumonitis could not be determined, but the possibility was entertained that it was one of these 3 infections, in all of which there was evidence that aureomycin was therapeutically effective.

Although clinically psittacosis and lymphogranuloma venereum are dissimilar, the viruses causing these infections are very similar and are classified in the same genus, *Miyagawanella*. A common antigen is present in both viruses, and serum from patients with either disease will fix complement in the presence of antigens prepared from either specific virus.[15, 16] This cross reaction is also demonstrable in the skin test in man[15, 16] and in experimental animals.[17] it seems apparent that at present neither serologic nor skin tests can distinguish between infections caused by psittacosis virus and lymphogranuloma venereum virus, yet both tests are specific for these diseases as a group. The differentiation must be by the clinical course or isolation and identification of the virus.

In this case the appearance of antibodies in high titer for the psittacosis-lymphogranuloma venereum group of viruses between the eleventh and twenty-sixth days and the positive skin test with 'lygranum S.T." furnished evidence for infection with an agent of this group. Clinically the disease manifested chiefly by pneumonitis was compatible with a diagnosis of psittacosis, and there was no clinical evidence of lymphogranuloma venereum.

In previous experience antibodies[11] have made their appearance from the seventh to the tenth day. It is of interest to speculate whether the specific therapy here employed caused a delay in their appearance. That this might be the case is suggested by reports of experimental infections in animals. It has been shown that there is a definite relation between antibody titer and sulfonamide therapy in white mice experimentally infected with lymphogranuloma venereum virus, an agent closely related to psittacosis.[18] This may necessitate the practice of a longer period of serologic observation in order to detect the presence of specific antibodies.

Summary

A case of psittacosis occurring in a 53-year-old white man was diagnosed clinically and by the development of complement fixing serum antibodies and was treated with a single antibiotic, aureomycin. Treatment commenced 3 days after onset, the patient rapidly improved, and his temperature was normal 30 hours later. A total of 14 Gm. of aureomycin was administered during 5 days. There were no relapses.

(*Continued on page 236*)

President's Page

THE DOCTOR AND HIS CONTRIBUTIONS

Practically every mail delivery brings to the doctor's desk some appeal for funds. These range all the way from a mimeographed letter with a subscription blank to elaborately illustrated pamphlets with detailed financial statements, and various types of merchandise, carefully numbered, with return postage guaranteed. I have quite a collection of Christmas Seals going back over the years that testify to the successful operations of the National Tuberculosis Association, but somehow I forget to use the seals for their avowed purpose, and they continue to accumulate.

What is the doctor to do about all these appeals? There are many worthy causes, although it would take too much time to investigate the merits of each. The doctor may look with a somewhat jaundiced eye upon the unfamiliar ones, especially if he is acquainted with fund-raising methods and realizes that executive directors, secretaries and clerks have to be paid out of the funds collected. Centralization of effort has been tried, but except for the Community Chest has had little effect in reducing the overhead.

The doctor may feel that in contributing his services so largely to the community he has met his obligation to society and is therefore exempt from actual pecuniary outlay. Fortunately, this attitude toward the problem is uncommon. It is more of a problem to decide where he desires to place his contributions so that they will bring the highest return to him in terms of satisfaction with a social duty adequately discharged. The doctor enjoys as high a position in society as it is possible to achieve, and in contributing his funds as well as his time he is only acknowledging his debt to society.

There is no yardstick for the measure of gifts to charitable organizations. There was a time when the Church undertook all but private charity, and then the system of tithing had much to recommend it. Now that the organizations are so numerous and varied it seems that the doctor can best meet this situation by token contributions to a variety of causes that come to his notice, and by a substantial donation to the one that interests him most. Then he is in a position to see that his personal gift is of definite importance in the work of his cherished organization.

Walter Freeman

The Cancer Bulletin

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RECENT ADVANCES IN CANCER

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BONE TUMORS

RULES OF DIAGNOSTIC PROCEDURE: INTERPRETATION OF CLINICAL FINDINGS

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Patients with symptoms referable to bone, or with findings indicating disturbance of bone physiology or function, should always receive an adequate clinical and laboratory survey. Bloodgood and the authors[1] have repeatedly emphasized that any member of the medical profession, whether connected with a hospital or not, can assemble all of the laboratory investigations and can adequately carry out and record the physical findings and history. If then he is unable to interpret the roentgenograms, laboratory findings, and pertinent information gleaned from the physical examination and history, he can get expert advice by sending the accumulated data to a recognized specialist, clinic, or medical center. We cannot do better than list a set of rules of procedure for the diagnosis of bone lesions, which, we believe, will serve the best interests of the patient:

1. Do not perform an emergency bone exploration or biopsy unless there is definite evidence of an acute bone infection which needs immediate drainage.

2. Do not perform a bone exploration or biopsy until the history, physical examination (including the temperature), and all laboratory studies are made and carefully analyzed.

3. If the X-ray examinations strongly indicate malignant disease, deep roentgen therapy may be given while one is waiting. Irradiation should be discontinued if favorable response is lacking after 10 days to 2 weeks.

4. If doubt as to diagnosis persists, consultation should be sought without delay before irradiation or biopsy.

5. Do not mention amputation or a mutilating operation to a patient until the investigation is completed.

6. When amputation is the treatment of necessity for malignant bone lesions, permission must be obtained to amputate the part. Responsibility does not end with recommending the amputation. Bloodgood has well said, "The physician's science may be successful in interpreting the data in favor of the radical procedure, but his art is a failure if the patient refuses treatment."

7. Biopsy is the court of last appeal and most often has to be performed to settle the diagnosis. It also frequently happens that the pathologist responsible for the operating room diagnosis may not be familiar with the differential diagnosis of bone lesions. Should this occur, it is better to defer definitive treatment and promptly refer roentgenograms, tissue, and sections to a consultant of your choice, locally or otherwise. A quick reply on request can be expected.

8. Do not underestimate the value of immediate roentgen examination after an injury. More may be seen than is accounted for by trauma.

9. Every suspected giant-cell tumor should be examined by biopsy, and certainly the majority should be thoroughly curetted, except in the presence of malignant change associated with the tumor (less than 1 per cent). Many osteogenic sarcomas masquerade as giant-cell tumors.

10. Irradiation therapy for giant-cell tumor has been successful. There is always danger, however, of overlooking a malignant lesion without biopsy, of poor functional result, and of poor economy of time in treating weight-bearing bones; and, recently, indications are that irradiation of bone may ultimately lead to neoplastic metaplasia of bone structure.

11. Do not neglect palpation. Less and less today are the clinical features of benign and malignant tumors of bone helpful, but they should never be neglected.

12. Always obtain a roentgenogram of the chest to rule out metastases or to indicate the presence of a possible specific infection (example tuberculosis) as the primary focus affecting the bones.

13. Roentgenograms of the teeth may be helpful to determine the source of infection causing unusual lesions of bone.

14. Multiple lesions of bone must be ruled out but, when present, do not necessarily account for a particular bone change. A tibial lesion associated with other evidences of Paget's disease in the pelvis and skull may be so diagnosed but does not exclude the possibility of osteogenic sarcoma or metastatic cancer developing in the presence of Paget's osteitis. A skeletal survey should always include a roentgenogram of the pelvis, upper femurs, chest, and a lateral view of the skull.

15. Roentgenograms of a bone lesion, taken from different positions, are important; also, comparison of the affected bone with the opposite normal bone frequently clarifies the status of the diseased part.

16. Blood serology is a "must" test. There is no excuse for proceeding to biopsy or the operative treatment of bone lesions until a report of the blood serology has been received. The authors are familiar with examples of syphilitic bone lesions which were resected for sarcoma and, much to the embarrassment of the surgeons, ultimately proved to be luetic in nature.

17. Appropriate blood studies include a sedimentation rate, hematocrit, white and red blood cell count, differential white blood cell count, platelet count, and sternal marrow smear. Blood dyscrasias, such as Cooley's anemia, sickle-cell anemia, chloroma, the leukemias with osseous involvement, multiple myeloma and lipoidoses, including Christian's and Gaucher's diseases, may be thus differentiated.

18. Blood chemistry studies, when needed, are helpful in differential diagnosis. They include blood calcium, phosphorus, alkaline and acid phosphatase, total proteins, nonprotein nitrogen, albumin-globulin ratio, and formol-gel tests. The diseases that may be differentiated by such tests include hyperparathyroidism, osteomalacia, osteoporosis, pancreatic and renal rickets, multiple myeloma, sarcoidosis with bone involvement, prostatic carcinoma, bone metastases, and a variety of bone dystrophies.

19. A routine urine examination with additional studies for Bence-Jones bodies and calcium excretion, when necessary, should be performed. Nitrogen balance studies are occasionally indicated. These are usually required, when multiple foci of bone are present, for the differential

diagnosis of such conditions as multiple myeloma, hyperparathyroidism, and other endocrinopathies with bone involvement.

20. A metabolism test is occasionally worth while to indicate the presence of thyroid states associated with metabolic changes in the bone.

INTERPRETATION OF CLINICAL FINDINGS

In the diagnosis of a malignant tumor all diagnostic aids should be employed, but thorough familiarity with the clinical aspects of bone tumors is necessary. Some of the outstanding clinical features will be pointed out:

1. Pain is nearly always the first symptom of a malignant tumor, extremely variable, at first usually mild and often intermittent. Ultimately it becomes almost intolerable and is generally worse at night. An exception is the pain of multiple myeloma, which is usually relieved by bed rest. In cases with an acute onset, with fever much like that seen in acute osteomyelitis, pain may be throbbing or boring in character. Intermittent pain may veil somewhat the clinical picture and lead to false diagnostic conclusions. Pain may be localized at, or near, the site of the tumor, though it may be referred to a point distant from the actual site of the lesion, such as sciatic distribution of pain found in some pelvic bone tumors. A patient with giant-cell tumor may describe his pain as rheumatic in character. A pathologic fracture of such a lesion may not increase the pain. Usually pain is experienced with bone fracture in metastatic carcinoma.

2. Clinical findings by inspection and palpation are important. Trauma often calls the patient's attention to a tumor which is already present. Swelling is usually noticed by the patient after pain has existed for some time. Tumor enlargement is discovered earlier in bones with little muscle covering, or where the lesions occur in the periosteal region rather than centrally. The soft parts covering a malignant bone tumor may be edematous but are not indurated unless infiltrated by tumor or infection. The veins of the overlying skin may be enlarged and prominent. The skin may be adherent and reddened. Ulceration of the skin occurs more frequently with carcinoma than with sarcoma. Variation in the size of the tumor depends upon the locations, the histopathology, duration of growth, and the relation to surrounding structures. Extremely malignant tumors may remain small locally and yet kill the patient by metastases. On the other hand, less aggressive, slowly growing, secondary chondrosarcomas, and certain of the sclerosing osteogenic sarcomas may become quite large but still be amenable to complete removal. Tumors situated periosteally may grow faster than those centrally located.

Palpation gives information as to the extent and general outline of the tumor, as well as to its consistency. Mobility of a tumor over the bone indicates a tumor of soft tissue rather than one of bone. A definite, parchment-like crackling may be found upon palpation, suggesting a giant-cell tumor or bone cyst, in which the wall of the lesion is largely destroyed. Tumors arising from the periosteum or cortex are usually firmly attached to the underlying bone.

Pulsation is not a frequent finding in bone tumors, but occurs occasionally in osteolytic osteogenic sarcoma, spoken of as "bone aneurysm," metastatic bone lesions due to thyroid or renal cancer, and giant-cell tumor. Pulsating giant-cell tumor is rarely seen, though many pulsating osteolytic osteogenic sarcomas have stimulated it.

3. As for localization, there is a tendency on the part of certain primary lesions to involve different portions of the bone, less marked in primary tumors of flat bones, and in metastases. Most benign and malignant primary tumors of bone occur during adolescence and involve the metaphyseal triangle just behind the cartilaginous plates. Benign osteochondromas have a special predilection for the sites of the insertion of certain tendons. Primary chondromyxosarcomas may arise also at these sites. Giant-cell tumors occur in bone epiphyses beyond the age

of 18 years and are asymmetrical in the beginning, subsequently assuming a central position. Certain osteogenic sarcomas in children may involve the shaft for a considerable distance and simulate Ewing's sarcoma. Metastatic tumors of bone vary in location, due to the mode of metastases either by blood stream or by lymphatic invasion. Breast metastases usually involve the skull, the spine, the pelvis and the ribs, less often the femur and humerus. Prostatic carcinoma affects more commonly the spine, pelvis and skull, producing a sclerotic reaction rather than osteolytic changes usually seen in bone metastases from breast cancer. One should be familiar with these and many other related facts.

4. The findings revealed by X-rays vary with the location and mode of tumor growth. The asymmetrical epiphyseal lesion of giant-cell tumor varies markedly from a central bone cyst in the shaft of pipe bones. While roentgenograms of bone lesions often can be accurately classified as neoplastic processes, either benign or malignant, there is considerable chance for error without a biopsy.

5. Metastases from primary bone tumors are most common by way of the blood stream, but not infrequently lymphatic spread is encountered. Local recurrences are rare after radical operations. Lung metastases are the most common in uncontrolled cases, and it is important to have X-ray examinations of the chest made before any surgical procedure is carried out. These should be repeated in subsequent follow-up studies after therapy.

6. At the present time the only practical diagnostic application of radioisotopes in bone tumors is by the use of radioiodine (I^{131}) in tracer amounts to identify thyroid cancer metastases, including those involving bone. The Geiger counter, by counting the radiations that emanate from the absorbed radioiodine, can determine qualitatively the presence of the isotope anywhere in the body. The bone metastases seem to show more physiologic activity when the primary thyroid tumor has been removed, providing the bone tumor has potential functioning acinar activity.

7. Biopsy may be carried out by surgical exploration, or by means of needle aspiration. Surgical biopsy of bone requires adequate judgment and training on the part of the surgeon and wide experience with bone pathology on the part of the surgical pathologist. Ill-advised or poorly performed surgical biopsy can miss the disease entirely, disseminate disease, or cause fungation of the tumor process through the line of incision, endangering the prognosis. Biopsy should not be performed except by the surgeon who will have full responsibility for the future care of the patient. It should precede any definitive operation, such as amputation. It should be performed under a tourniquet, so that definitive treatment may proceed if the pathologist diagnoses the lesion unequivocally as malignant. Aspiration biopsy in the hands of those who are doing it frequently yields satisfactory tissue for histologic study in the majority of instances. The simplicity of the technic makes it possible to carry out biopsy in the outpatient department and permits immediate definitive surgical or radiation therapy without waiting for wound-healing, as in the case of surgical biopsy. The fallacies inherent in aspiration biopsy technic of bone include: difficulty in obtaining tumor tissue or in identifying neoplastic cells, hemorrhage initiated within the tumor, and, occasionally, dissemination of tumor along the needle tract.

The differential diagnosis of any bone lesion includes primary tumors of bone, tumors of marrow and haversian system origin, metastatic deposits, those tumors found in bone by inclusion or direct extension, inflammatory diseases of bone, osteomalacia in its various forms, bone dystrophies, osteoporosis in its various forms, hyperparathyroidism, and Paget's disease.

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Editorials

THE ROLE OF HOSPITAL SERVICE AGENCY IN MEDICAL CARE

All of us living in or around Washington are constantly aware of the vital importance of medical care problems. While larger aspects of the problem are debated with fervor in legislative circles it is of some significance that some progress has been made in our local program. Several voluntary agencies have played a role, among them the Hospital Service Agency, formerly known as the Health Security Administration. Its organization was largely due to the efforts of forward-looking doctors in the District Medical Society. Much of its accomplishment was made possible by the type of medical leadership exemplified by Dr. Henry C. Macatee, who was its President from 1935 to 1947.

By constitutional provision the Corporation and Board of Directors of HSA are made up of an equal representation of doctors, hospitals and the lay public. These three groups, each with a different approach, must meet on common ground to solve the multitude of problems in the realm of medical care. How do these three groups with divergent points of view work together in the interest of better community planning for medical care?

A doctor-member of a health agency board is effective only if he can adopt the point of view of an intelligent and public-spirited citizen. He must be willing to consider social and political as well as medical aspects of the problem. Intelligent citizenship rather than professional self-interest must dictate his decisions. Only then can his contribution of medical knowledge be accepted by other groups. The doctor-member is dedicated to a voluntary system of medical care and is vitally concerned that an equitable system be maintained.

The hospital administrators have had a sharply intensified interest in the problem of medical care in recent years because of the precarious financial status of their institutions. Rising costs and reduced income have focused attention on the "charity load." They have ardently supported the principle that all medically indigent patients must be paid for on a cost basis—from either public or private funds.

The lay members of HSA represent both the recipients of medical care and the contributors to both the tax funds and the Community Chest funds which are used for support of the medically indigent. They have a healthy skepticism of both medical and hospital attitudes. They are the probers of facts and the askers of questions.

The chief function of the Agency is the certification of patients to hospitals who need help from Community Chest funds. This would be a relatively simple matter if there were sufficient funds to meet the needs of all who apply. Then all patients needing medical care could obtain it and hospitals would be paid at cost. But such is not our Utopia. The Board of HSA is necessarily concerned with the broader aspects of the problem. There is constant appraisal of policy in regard to medical indigency. There is concerted effort to gain an acceptance of the maximum of personal responsibility. There is invariably the group who are not able to pay any costs of medical or hospital care from their own resources.

The proper allocation of tax and voluntary

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia

funds is always a problem. In the past two years there has been a sizable shift in the District in the number of patients paid for from public funds. This has come about through a more liberal definition of medical indigency.

There have been frequent negotiations between Welfare Boards in the District and nearby Virginia counties to achieve the same result. Desirable as it may be in many respects to increase the responsibility of tax support, how far can this policy be pursued without limiting teaching material in the voluntary hospitals?

One of the chief contributions which HSA can make is to educate individuals in the community. This is done through publicity in newspapers and by discussion at meetings. It is natural that the best informed individuals are those who are a part of the Community Chest Federation. These public-spirited people give their time and enthusiasm in the cause of community social services. The various committees which review the hospitalization fund budget raise many pertinent questions. Why in this community is there such a large number of medical indigents? Why are hospital costs so high? Are we spending from voluntary funds too large a proportion of the contributor's dollar for medical care?

All this is salutary. Even when discussions become heated and meetings seem endless, the end result is that many more individuals in the community have reached a level of understanding of the complexity of the problem. There is no easy answer. There is, however, the certainty that the best interests of the community are met when the doctors, the hospitals and the Community Chest, which represents the lay public, work together toward a solution.

Thistle McKee, M.D.
President, Hospital Service Agency

STANDARDIZATION OF CANCER DATA

Statistical data become so many isolated figures if the method for reporting the information lacks uniformity. Each time the Bureau of Cancer Control is requested to give figures on known cancer cases in the District of Columbia, the type of treatment available in the District, the number of new cases diagnosed in any one year, and related facts, we are reminded again how nonuniform our information may be. This is not the fault of any one individual or institution, but over the years each has worked out a system which was satisfactory for his own needs. If all the material available were consolidated, accurate statistical facts on cancer as they pertain in the District could be compiled.

In the Cancer Registry of the Bureau of Cancer Control are supposed to be all the known cancer cases of District residents, with the type of treatment and up-to-date status. However, reporting cases to the Registry is done on a voluntary basis, since cancer in the District is not reportable by law, with the result that any figures are estimates only. Until cancer becomes reportable by law, an alternative for determining progress of the cancer problem in the District is offered. If all the hospitals in the District were to use uniform control sheets to report cancer data each month, a true evaluation would be possible. For this reason a control sheet was drawn up and presented to the Committee on Cancer Control and the Executive Board of the Medical Society of the District of Columbia for their approval. Both the Committee on Cancer Control and the Executive Board have approved the forms which we propose to furnish hospitals in the District to insure uniformity of reporting data. The control sheet is by no means a substitute for the Registry but will help to augment it.

The hospitals have been as anxious as we to standardize records. This is one step toward that goal and we hope their desire will be expressed in active coöperation.

Charlotte Donlan, M.D.
Director, District Bureau of Cancer Control

HIDING THE LIGHT UNDER A BUSHEL

Washington is distinguished by its monuments. Some of them memorialize the eternally great. Some have sprung from momentary impulse in memory of ephemeral greatness.

There is a bronze bust, hidden in an obscure and obsolete building, to memorialize an eternally great man named John Shaw Billings. But Billings' real monument he created himself: it is the Army Medical Library and its Index Catalogue. These are known throughout the world wherever medical research is done. The Library stands guardian over its millions of medical treasures here in Washington; but its replica in miniature is the Index Catalogue which projects the Library to every land, for it is the key, and the only complete key, to the almost 5,000,000 items of medical literature available in the Library itself.

The Index Catalogue was established by Act of Congress in 1879 and has been published under that authority uninterruptedly ever since. As new volumes have been printed, numbering now 57, they have been distributed to public and medical libraries, universities and research centers all over the world. It has been described as the greatest gift the American people and American medicine have made to mankind.

Thus the Army Medical Library and its Index Catalogue, though a monument to John Shaw Billings, have become also a monumental beacon which for over seventy years has thrown a familiar and guiding light to medical men in every land and clime. During all the years when medicine in Washington was suffering a sort of provincial eclipse, this great light burned steadily for all the world to see.

Now it is proposed by the Surgeon General of the Army that publication of the Index Catalogue shall cease. Advised by a Committee of Consultants that the rapidly growing journal literature can best be currently indexed otherwise, the decision has been reached that the latest volume of the Index Catalogue, which covers the first half of the letter M, shall bring the series to a halt in midcareer.

This decision will result in what the *Lancet* (January 28, 1950) describes as the loss of "an indispensable tool for medical research all over the world. It is the key to the work of our predecessors buried in the stack of periodical literature. This work is ignored at peril." The *Lancet* says further that Billings saw that "an index to journal literature was as essential as a catalogue of his books" and combined in the Index Catalogue both varieties of source material. In doing so he accepted the "decided preference" of the great majority of American physicians against "the convenience of librarians."

Now after seventy years "the convenience of librarians" seems about to win over the need of medical research men, who instead of searching through one volume of the Index Catalogue may have to delve through forty volumes of the Cumulative Index Medicus, for example, to cover the same time and field.

Thus a great light is about to be hid under a bushel. One wonders whether the bushel is part of the wave of economy in Government, or whether it is the "convenience of librarians." If it is economy, it is of the same sort that has persisted in housing the Army Medical Library in the obsolete and fire-inviting building where Billings' bronze monument rests; and which subjects its irreplaceable treasure to such danger as that no economy can justify.

Cannot the "decided preference" of physicians the world over* reverse the Surgeon General's policy? Has the Act of Congress of 1879 been repealed?

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* "The news has just been received that publication of the Index Catalogue is about to be discontinued forever. . . .To call this a calamity is to understate the case."—M. J. Australia, February 25, 1950.

"We should regard the stopping of the Surgeon General's Index Catalogue as an irremediable loss to medical research and knowledge in this and all other countries."—Proc. Roy. Soc. Med. (London), January 20, 1950.

"Billings offered his first volume as a proof that 'aid and sympathy' received from many physicians both in America and Europe had not been wasted. We must thank his sucessors for a payment which has far surpassed this debt, and assure them that if the Index Catalogue ceases to exist, it will have to be invented again."—Lancet (London), January 28, 1950.

Secretary of Defense Johnson has said recently that economy in the armed forces has succeeded in converting fat into muscle. Are the authorities certain that they know what is fat and what, muscle?

The Army Medical Library and its Index Catalogue should remain one and indivisible, and they both should be seen as an American contribution to the good of mankind. Perhaps the President might include them in Part Four of international policy.

Henry C. Macatee, M.D.

MEDICAL SERVICE—YOUR BLUE SHIELD PLAN—IS ON THE MARCH

Medical Service of the District of Columbia, the Washington doctors' plan for voluntary prepayment of the cost of surgical care, has come a long way since April 1, 1948, when the first subscriber was enrolled.

The Plan is working, to the delight of its friends, and already more than 12,000 subscribers have had their surgical and obstetrical bills paid in full or in great part by the benefits their Surgical Service Certificates offer. Physicians have been paid more than $1,000,000 for services they have rendered to subscribers, and payments to the doctors are continuing at a rate of more than $100,000 a month.

A great deal of satisfaction may be derived from these solid achievements, but it would be a mistake to assume that the task of providing a sound and strong Surgical Service Plan is more than well begun. From the beginning it was realized the Plan would have to travel a largely uncharted course and, therefore, no one has been surprised that unforeseeable problems have been encountered. Undoubtedly, other problems will continue to appear as the Plan grows and conditions change.

No one has a bigger stake in the solution of these problems than the physicians themselves. Medical Service was established by physicians; it is governed by physicians who determine what services they shall provide under the Plan, how much they shall be paid by the Plan for their services, and how much their patients who enroll shall pay the Plan for the protection it provides. Lock, stock and barrel, Medical Service is the PHYSICIAN'S PLAN.

During the brief span Medical Service has been in operation, it has expanded rapidly, and more than 200,000 residents of the Washington area are now enrolled. One of the Nation's youngest Blue Shield Plans, it already enjoys the distinction of ranking third in percentage of population covered, since approximately 22 per cent of the residents of the Washington area are now enrolled. There are more than 1,285 participating and coöperating physicians who are determined that the Plan shall grow in service to the people it was established to protect and that it shall be equal to the tremendous task of absorbing the financial shock of catastrophic illness.

At the moment, however, Medical Service is experiencing "growing pains" similar to those that have marked the development of other Blue Shield Plans, but members of the Board of Trustees have kept close watch over their ward, and several months ago they realized that the application of controls with respect to underwriting requirements and changes in the subscriber contract were necessary. Accordingly, the contract has been rewritten and strengthened and requirements for group enrollment have been changed to provide a better cross-section of risks.

Probably the most important changes in the contract are those that apply to preëxisting conditions and to tonsillectomies and adenoidectomies. The original contract permanently excluded preëxisting conditions "known" to exist at the time of enrollment, and a waiting period for tonsillectomies and adenoidectomies was not required. The revised contract provides benefits for preëxisting conditions (except congenital anomalies and certain plastic surgery) and for "T and A's" after a 10-month waiting period.

It was found that the Husband-Wife Contract cost the Plan as much as the Family Contract and it has been discontinued. Enrollment is now conducted according to marital status. Single persons may enroll under an Individual Contract and a husband and wife, or a husband, wife and children may enroll under a Family Contract. These changes, it is believed, will result in greater protection for both the subscriber and the Plan. They minimize the likelihood of adverse selection of risks who frequently seek elective surgery. At the same time, the new contract covers many conditions for which benefits hitherto were permanently excluded.

Participating physicians naturally are interested in administration of the claims they present to Medical Service. It is here that relationships between subscribers, participating physicians and Medical Service intermingle, and they must be kept in harmonious balance if the Plan is to succeed. Often the physician must fill the double role of healer and public relations representative for his Blue Shield Plan. When this occurs, nothing is quite so helpful as a thorough knowledge of the provisions of the subscriber's contract, for this enables the physician to inform the subscriber of the benefits he may expect to receive.

Physicians may find it necessary, at times, to guard against the tendency to sympathize with subscribers' effort to obtain protection without regard for the terms of the contract. Such a tendency cannot be justified for it is the policy of Medical Service to see that subscribers receive all of the benefits they are properly entitled to receive and for the Plan to do more would be detrimental to the best interests of all concerned.

Physicians may sometimes feel that too much time is required for the approval of claims; however, delay often may be traced to failure of the physician to submit a medical history or to report fully the procedures performed. If the information provided is inadequate, Medical Service has no recourse but to request additional data, which contributes to delay. When a claim is presented for a service not included in the Schedule of Fees, action by the Committee on Physicians' Services is necessary. Members of this Committee are serving their Plan unselfishly, meeting frequently to expedite their work, which consumes a considerable amount of their time. However, as the Plan gains experience, these and other factors that contribute to delay in the approval of claims may be expected to diminish.

Completing its second year, Medical Service is a lusty youngster. The Plan is on the march. It is expanding at a gratifying rate which should receive impetus when nongroup enrollment, recently approved by the Trustees, is begun. The Plan is building firmly on the experience gained during the early months of operations.

What of the future? The need for the protection offered by Medical Service continues unabated and the Plan provides the machinery through which physicians can fulfill that need. To assure a full measure of success, each physician must recognize and accept his personal responsibility for seeing that Medical Service—the Doctors' Blue Shield Plan—fulfills the high purpose for which it was established.

FRANK D. COSTENBADER, M.D.
President, Medical Service of the District of Columbia

CANCER DRESSINGS AVAILABLE

Cancer dressings are now available, either free or at cost, according to the physician's statement of the circumstances and need of the patient, Dr. George C. Ruhland, Executive Director of the D. C. Division, American Cancer Society, announces. Your statement regarding the patient upon your prescription blank, presented at the office of the Cancer Society, is all that is needed. The office is at 1200—15th Street, N.W., Room 312 (telephone Executive 3692).

In and Out of Focus

BY THE OBSERVER

Membership Luncheons Readers of this column may recall an item entitled "A New Approach" which appeared in the January issue of the MEDICAL ANNALS and in which your Observer reported that weekly luncheons would be given for small groups of members for the purpose of acquainting them with Society affairs.

Originally it was planned to check the membership roster to determine those who have not been active on boards and committees of the Society, and to invite them to these luncheons. However, this was found impractical. The procedure decided upon was to begin with the newest members, inviting those most recently elected in order of their election. If the luncheon proved successful, the entire membership would eventually participate. It was recognized that this would take a long time but that was not considered important. The main thing was to make a beginning to see what the response would be on the part of members.

The cost of the luncheons could be kept to a minimum if they were given at the Society's building. An appropriation was made by the Executive Board for this purpose and included in the Society's budget for the coming year.

When this was written the fourth membership luncheon had been held. The result to date encourages officers of the Society to believe the idea is an excellent one. Comments by those in attendance have been uniformly commendatory. These have not always been made under circumstances which made them obligatory. The most enthusiastic comments have come to officers of the Society indirectly.

Members who have not yet participated in the luncheons may be interested in knowing something about them. They have already taken on a pattern which, with some variations, is followed from week to week. Luncheon is served in the Library of the Medical Society's building promptly at 12:30 p.m. on Tuesdays. Usually most of those invited are on hand punctually and the food is served without delay. At 1 o'clock, or a few minutes before that time, the President of the Society or, in his absence, the Vice President, welcomes members and asks each of those present to introduce himself, stating the medical school from which he was graduated, his subsequent training, and the type of practice in which he is engaged. The Secretary follows this get-acquainted procedure with a brief review of the Society's history, its activities, benefits to members, and finances. He stops promptly at 1:30 p.m. If there are any questions or comments the meeting may continue for a short time; otherwise the proceedings are brought to a close. Members who are not in too much of a hurry to return to their offices are invited to inspect the Society's offices, MEDICAL BUREAU, and other parts of the buildings that they would not otherwise see.

The net result of all this, your Observer believes, is to give members a sense of belonging—a feeling which they might otherwise not have. Certainly they will know more about the organization's purposes and how it is conducted. Important, too, is the opportunity these get-togethers afford members for fraternization.

Some of those familiar with both the luncheons and the Orientation Lectures sponsored by the Society in the past two years have stated their preference for the former. They agree that the lectures served a valuable purpose but that they lacked the warmth that is engendered in small, informal gatherings.

Ten membership luncheons in all are planned before summer. The last will be held during the latter part of April. If the remaining luncheons are received as favorably as they have been to date, they will undoubtedly be resumed in the fall and continued indefinitely.

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On Speaking to Lay Audiences

Physicians have not been uniformly successful in speaking on compulsory health insurance to lay audiences. Among the reasons for this are lack of preparation, failure to deal with the subject in an objective manner, and ineffectiveness in public speaking. Fortunately there is a remedy for each of these defects and your Observer hopes that these observations will be of some assistance to those who are interested.

There is an immense amount of literature on the socioeconomic aspects of medical care. Obviously, the doctor hasn't the opportunity nor the inclination to devote a great deal of his time to such reading. The material he reads should, therefore, be chosen with care so that he will acquire a knowledge of essential facts. Included should be the history of the compulsory health insurance movement in this country, a review of the legislation which has been introduced in the various states and the Congress of the United States to further its development, and the various bills now before the Congress. If the physician finds it possible to go beyond this point in his reading, so much the better, because he will find it helpful should he be questioned at length by the audiences before which he appears.

Strong emotional factors come into play when medical care is discussed. That is natural and, within limits, is not objectionable. However, where there is an unabashed appeal to prejudice, much of the effectiveness of the speaker's efforts is destroyed. Those who agree with the speaker naturally approve, but no one else is convinced. That has been demonstrated time and again in so-called radio debates where opponents throw caution to the winds and hurl accusations at each other without regard for the facts. Audiences may respond with great enthusiasm to such exhibitions, but nothing is accomplished by them. Needless to say, physicians should avoid performances of this kind by being as friendly, frank and honest with their audiences as when they talk to patients.

Not all physicians are good speakers, but that isn't essential. An informal, sincere manner will always carry conviction. It is true, of course, that the physician trained in public speaking is usually more effective than the practitioner who has gained his knowledge through experience alone. Our Medical Society will soon sponsor a public speaking course for members. This will afford those who appear before lay audiences an excellent opportunity to obtain training at the hands of experts.

The Society's Speakers' Bureau is in urgent need of volunteers to address lay audiences on compulsory health insurance. Requests far exceed the supply of speakers on this subject. An effort will therefore be made at the conclusion of the public speaking course to orient those who volunteer to participate in this phase of the Bureau's activities. A list of references and tentative outline of a speech will be provided.

Your Observer cannot conclude these comments without reminding members of some of the advantages which they enjoy in appearing before lay audiences:

1. Because physicians have an intimate knowledge of medical problems, they speak authoritatively on the subject and are accepted by their audiences as experts in this field.

2. While they are not economists, physicians are well aware that the over-all costs of medical care are often a heavy financial burden for their patients. Here they also speak with authority. In addressing lay audiences they should make it clear that they favor adoption of sound methods which would lighten the financial burden of their patients, and that they are actively supporting experiments with this objective in view.

3. Physicians are more aware than anyone else that the present methods of providing medical care are not perfect, and they should not hesitate

to say so. The important thing is that they are constantly seeking to improve the quality as well as the distribution of medical service.

4. Physicians have learned from experience that the best medical service is provided where there is least interference with the doctor's care of his patient. They can be very effective in stating reasons why this is so.

5. Audiences are largely made up of patients, the majority of whom do not need to be convinced that their doctors are concerned primarily with their health and well-being, and that other considerations are secondary.

If the physicians will keep these advantages in mind in laying the groundwork for their talks, they will receive a fair hearing. Even a hostile audience will usually respond favorably.

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Pastoral Medicine Addressing himself to the graduating class of Aberdeen University (Scotland) last September, Dr. T. M. Taylor, Principal of the University, said, "It is far too soon to pass any verdict on the [British] National Health Service whether of praise or of blame, but one danger is already apparent—that its financial arrangements may easily tend to draw men away from general practice into so-called specialisms, with results that on the long view may be detrimental to the weal of the patient and the general progress of medicine."

He warned of the dangers inherent in this situation as follows:

> "It will be an ill day for the community when the general practitioner degenerates into a filler of forms or an automatic machine dispensing chemical panaceas. In earlier times the specialist usually graduated from the field of general medicine or surgery in which he was accustomed to deal with his patient as a human being set in a particular environment. Now the specialist at the very beginning of his career will be tempted to immure himself in his specialty, and the danger may be not only that the range of his own medical knowledge will be restricted but that he may come to lack understanding of the patient's environment and of the problems that face the general practitioner.
>
> "I am aware of the theoretical arguments in support of this trend. They start from the proposition that medicine is a science—i.e., an attempt to make knowledge quantitative—and in their extreme forms they suggest that the best results may be attained by subjecting the patient to the attentions of a series of specialists, each producing his quantitative report with a Grand Coordinator at the top who collates their reports and then prescribes the appropriate remedy. This picture, I will concede, is caricature, but it is not an unrecognizable distortion of some things that may be read or heard. The other theory rests on the contention that medicine is an art and that there is no difference in principle between the doctor making up his mind and the judge framing his judgment, the painter building up his picture, or the cook producing a good meal. In each case the practitioner of the art requires to take a total view of the situation, balancing the different elements with a delicate sense of relevancy. It is this intuitive sense of relevancy and balance that makes a judgment—legal, medical, aesthetic, or culinary—and in each case the art is learnt by doing the job and by following the practice of the acknowledged masters. It cannot be disputed that contemporary medicine owes much to the quantitative approach of exact science, but on the other hand it must not be forgotten that many of the great discoveries have come by chance to men who, like Saul, were looking for their father's asses and found a kingdom. Others again, as Sir James Mackenzie was never tired of saying, were due to general practitioners who were capable of using their own observation and clinical nous to some purpose.
>
> "If the practice of medicine is an art rather than a science it is equally true that the patient himself is not a mere natural object to which the technics of physical science can be universally applied. I think it will be increasingly recognized that man has a spiritual structure which must be respected no less than the physical structure with which it has some kind of relation. It may be that the conditions of modern industrial society are themselves a violation of this essential structure, and that the increase of nervous tension and mental instability and the growing resentment of the industrial proletariat are symptoms of a violation too gross to be palliated by mere adjustments of social mechanism. However that may be, there now devolves upon the doctor in general practice a quasipastoral function which derives from the pathetic and indeed terrifying trust which simple folk repose in him. It is to be feared that the medical course, grossly overloaded as it is admitted to be, is a most inadequate propaedeutic for the discharge of a ministerial function of this kind. It becomes a

question whether there should not be a course in pastoral medicine as well as in pastoral theology. Such a course would take the student into deeper waters than can be plumbed by operational technics and the measuring instruments of the laboratory."

Many others have raised their voices in alarm over the trend toward specialism and the resultant neglect of general practice. Few have done so more effectively than Dr. Taylor.

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Why Don't You Do Something?

Have the American Medical Association and its constituent and component societies told the story of their achievements as well as they might? Sometimes your Observer has serious doubts on this score. Far too many people with whom he talks look upon organized medicine as being against, rather than for, something. He is, of course, aware that a substantial portion of the population are cognizant of its contributions to public welfare. But there are a disturbing number in unexpected and influential places who are not only uninformed but unsympathetic.

Illustrative of this attitude is an incident which occurred at a meeting in the Medical Society's building not so long ago. The speaker on this occasion gave a comprehensive description of the British National Health Service, supplemented by recordings of his own conversations with English people in all walks of life. During the question period, the discussion turned to the situation in this country. Two or three of those present expressed the view that there was a need for a satisfactory national health program. They were not antagonistic to organized medicine—but not too friendly either—and obviously knew little about the activities of the AMA and medical societies generally.

One individual present, obviously agitated, said it was well known that medical care was readily available to the rich and the very poor but the great middle class was in a bad fix. Many of them simply could not afford the medical services which they needed and nothing was being done for them. He concluded his remarks with this question, directed to the medical men present—"Why don't you do something?"

Your Observer's first reaction was one of resentment. How was it possible that any informed person could ask such a question in the face of the tremendous effort being put forth by the medical profession through its prepayment plans and by other means to ease the financial burden of the people? Then he recalled how many times he had heard the same question asked and sometimes by those who are sympathetic to physicians. Somewhere along the line it seemed to him organized medicine had failed.

This was emphasized as the evening wore on, and others—some of them leaders in national organizations—admitted that the Blue Shield and Blue Cross were nothing but names to them. Explanations followed, but there was little time to do justice to the vast program undertaken by the medical profession and hospitals of this country. However, those present were promised pamphlets and other material throwing light on this subject.

As for the individual who threw out the challenging question, he insisted that he was not for "socialized medicine" and that he merely sought evidence that sincere efforts were being made by the medical profession to solve some of the social and economic ills of medicine. He still felt some doubt that any serious attempt was being made to find a solution.

This incident and others like it should serve to remind physicians that there is still a big task ahead of them, not the least being to enlighten many people who have little knowledge of what they and their medical organizations are doing. They must not forget their responsibilities as ambassadors of good will for the experiments in providing medical care undertaken by their medical societies. Many supporters among the laity have been won to the cause of the voluntary effort, but many still are indifferent and uninformed.

Something for Nothing Whether or not it makes sense, the promise of something for nothing holds wide appeal. Well aware of this fact, proponents of compulsory health insurance are playing this theme for all it's worth. It is the most difficult sort of propaganda to combat.

New York Medicine stated the situation very well in a recent issue when it said:

> "In the administration's objective to become the shepherd of our ills and custodian of every stomach ache, earache, appendix, gall bladder, pregnancy and all other maladies, it has taken a firm stand against any and all human sufferings. And one can be sure it joins the rest of the nation and takes a firm stand against sin.
>
> "We anticipate that when the administration's spellbinders next speak they will add to this (1) that the health of the people is the greatest single asset of the Nation; (2) that 'free' medical care is America's greatest necessity; and (3) that our people will perish without it.
>
> "Despite the lull, we are sure that the advocates of national, compulsory health legislation are going to continue an unremitting and relentless, if circuitous, drive and physicians must not become complacent about it.
>
> "Some years ago it was Al Smith who said, 'Nobody would think of shooting Santa Claus.'
>
> "People do not quite understand the full meaning of compulsory health insurance. It sounds like Santa Claus. People have been told it would mean effective health care for everyone—especially those in the low income brackets and those in need—this, at no cost except a slight (?) deduction from their weekly pay check. Many believe this. It is a fallacy bordering on actual fraud. Only it is not a childish, rather lovable fraud like the myth of Santa Claus. Yet fraud it is, and experience in other nations proves it.
>
> "Compulsory health insurance, in its historical origins, was proposed with mixed motives not entirely intended to provide better health service for more people. It was originally established by Bismarck to make the people feel obligated to the German government. It was a plan to strengthen Bismarck's centralized control of the state. Any gains in health were secondary and linked to Bismarck's concept of a master German race.
>
> "The plan has passed through varying degrees of evolution since Bismarck's day, but the American people in 1950 should know that it is not wise to act rashly in the matter of compulsory health insurance when the majority, the great majority, of the doctors who would have to carry it out, say it cannot be done."

The journal pointed out that the medical profession is "charged with the responsibility of the health of the public" and therefore obligated to make it clear that under a compulsory system patients will not receive medical care comparable to that which they receive at present.

> "No government-controlled régime," the editorial continued, "can equal a competitive medical system in furnishing physicians the incentives which lead them to do their best to increase the quality of medical service to the public. If all rate equal under the All-Seeing Eyes of Washington there is little urge to do one's best. Only where all are free and rewarded adequately are human energies released in full.
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> "Only under such conditions do all classes—teachers, laborers, office workers, lawyers, business and industrial executives, as well as doctors—do their utmost and really prosper and enjoy life."

T. W.

MEETINGS

Wednesday, April 26

The D. C. Division of the American Cancer Society will sponsor the program. ALLEN WHIPPLE, M.D., Clinical Director of Memorial Hospital, New York, will discuss the place of radical surgery in the treatment of cancer. There will be opportunity for questions from the floor.

Wednesday, May 3

ANNUAL BUSINESS MEETING

Wednesday, May 10

The following program will be presented:

"The Therapeutic Differential Diagnosis of Jaundice," A. C. Ivy, M.D., F.A.C.P., Vice President, Distinguished Professor of Physiology and Head of the Department of Clinical Science, University of Illinois.

This meeting will be sponsored jointly by the Middle Eastern District of the College of American Pathologists, the Baltimore Society of Pathologists, the Washington Society of Pathologists, and the District Medical Society's Section on Pathology and Laboratory Medicine.

REPORT OF THE EXECUTIVE BOARD*

Matters taken up in this report are for the most part those usually presented at the March business meeting. However, there are a few other matters which are of an emergency nature and demand the immediate attention of the Society.

Physicians Proposed for Honorary Membership: For many years the Society has recognized outstanding physicians in Washington by conferring Honorary memberships upon them. In this group have been distinguished officers of the armed forces, high officials in the Government, and outstanding scientists. Your Board is pleased to propose the election of the following physicians who it feels merit recognition:

1. Dr. Richard L. Meiling, Director of Medical Services, Office of Secretary of Defense. Dr. Meiling assumed his high office on October 1, 1948. In his present capacity he is head of the medical services of the Army, Navy, Air Force and of the several boards and agencies in his department. Before accepting his present assignment, he had served as consultant to the Surgeons General of the Army and Air Force since 1948. In 1942 he was Assistant Surgeon of the First Air Force and Eastern Defense Command. From 1943 to 1944 he was stationed at the AAF headquarters in Washington. Among his other military duties in 1944 was that of Assistant Surgeon of the 20th Air Force. Throughout 1945 he was Chief of the Morale Division, U. S. Strategic Bombing Survey in Europe. Subsequently he became Director of the AMA's Council on National Emergency Medical Services.

Dr. Meiling is a member of the Columbus Academy of Medicine, a delegate from that organization to the House of Delegates of the Ohio State Medical Association, and an Alternate Delegate from the Association to the AMA's House of Delegates. He is now on leave of absence as Assistant Professor in the Department of Obstetrics and Gynecology at Ohio State University, a post he has held since 1947.

2. Dr. Luis Francesco Thomen, Ambassador of the Dominican Republic. Dr. Thomen has not only distinguished himself as a diplomat but is widely known as a physician. He received his medical degree from the Faculty of Medicine at the University of Santo Domingo in 1936. Postgraduate work followed at Columbia University Medical School (1936–37) and the Graduate School at Tulane University (1937–38); from the latter institution he received the degree of Master of Science in Tropical Medicine, Parasitology and Bacteriology.

Dr. Thomen engaged in the practice of his profession in his native land from 1938 until 1941, when he returned to the United States for advanced studies in hygiene and public health. Having completed these studies he became his country's Undersecretary of State for Health and Public Assistance, later full Secretary.

Few physicians have been honored by so many national and international scientific bodies as has Dr. Thomen. The list is far too lengthy to incorporate in this report.

Both of these nominees will be voted on at the next business meeting of the Society on May 3. The Constitution and By-laws provide that they must be presented at one meeting and voted on at the next.

Summary of Membership for 1949: On December 31, 1949, the total membership was 1,693. This represents an over-all increase in membership of 99 when compared with the previous year. Of these, 70 were elected to Active membership.

Applications for membership still exceed the number of resignations but the influx of physicians seeking to establish themselves in Washington has declined perceptibly in the past year.

Annual Financial Report for 1949: [Space limitations will not permit the publication of the Report and the Budget. Members who are interested and could not attend the Business Meeting at which they were presented can obtain copies by calling the Society's office.]

Election of the Nominating Committee: The election of this committee was conducted in the manner prescribed by the Society. Twenty-one members of the Society, selected by the President and confirmed by the Board, were placed on ballots which were sent to all Active and Life members. As a result of the balloting the following, who received the highest number of votes, were elected members of the Nominating Committee: Drs. William W. Chase,

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* Adopted at a special Business Meeting of the Society, March 1, 1950.

Arthur C. Christie, Darrell C. Crain, Robert H. Groh, Margaret Mary Nicholson, Donald Stubbs, and J. Lawn Thompson, Jr.

This committee will submit its nominees for offices in the Society at this meeting.

Nomination for Vice President of the Washington Academy of Sciences Representing the Society: Dr. Frederick O. Coe was nominated by the Executive Board to succeed himself in this office which he has held for several years.

Recommendation that Members of the Medico-Chirurgical Society of the District of Columbia, Inc. Be Invited to Attend Regular Scientific Meetings: As our members know, Negro physicians in Washington have their own organization, known as the Medico-Chirurgical Society of the District of Columbia, Inc. Relations between this organization and our Society have on the whole been very friendly. In a number of instances both organizations have cooperated in an effective manner.

For example, during World War II the Medico-Chirurgical Society was ably represented by one of its members on the Procurement and Assignment Committee for Physicians. More recently both the District Medical and Medico-Chirurgical societies were represented on a committee to select a new Health Officer. However, relations of the two groups have been largely limited to occasional joint efforts of this kind.

Shortly before the 18th ANNUAL SCIENTIFIC ASSEMBLY (1947) a petition was received by your Board, signed by members of our organization, urging that members of the Medico-Chirurgical Society be invited to attend scientific sessions during the ASSEMBLY. The Board directed that the signers be informed that no qualified doctor of medicine or student of a recognized medical school had ever been denied admission to the Society's scientific sessions. Prior to the 19th and 20th ANNUAL SCIENTIFIC ASSEMBLIES a formal invitation was extended to members of the Medico-Chirurgical Society and the faculty and medical students of Howard University to attend scientific sessions.

Late in June, 1949, a telephone call was received by the Secretary of our Society from Dr. W. Montague Cobb, chairman of a special committee appointed by the Medico-Chirurgical Society for the purpose of conferring with representatives of our organization. By prearrangement the committee, of which Dr. Cobb was chairman, and Dr. John Sinclair Perry, President of the Medico-Chirurgical Society, and Dr. Edward Mazique, chairman of its program committee, were members, met with the then President of the District Medical Society, Dr. John Minor, and the Secretary.

Dr. Cobb, spokesman for his committee, reviewed the situation which he said was unsatisfactory to Negro physicians. He called attention to the fact that other Southern medical associations were accepting these physicians as members. He inquired what might be expected locally.

Dr. Minor explained that, of course, neither he nor the Secretary could speak for the Society but that they would gladly convey the views expressed by Dr. Cobb and his committee to the Executive Board and as soon as possible advise them of developments.

Subsequently this matter was discussed at several Board meetings. On November 5, 1949, a communication was received from Dr. Cobb inquiring what decision had been reached. On instruction of the Executive Board the Secretary wrote Dr. Cobb that no definite conclusion had been reached and that as soon as some action was taken he would be advised. These communications were later published in the *Bulletin of the Medico-Chirurgical Society* and found their way into Washington newspapers.

The whole situation was again reviewed by the Executive Board, which appointed a special committee, consisting of Drs. Walter Freeman, President of the Society, Herbert P. Ramsey and Raymond T. Holden, to discuss the matter further with the special committee of the Medico-Chirurgical Society, the object being to explore the possibility of arriving at a mutually satisfactory solution. Out of this conference and further deliberations of the Board came the recommendations submitted to you tonight.

Your Board voted unanimously at its meeting on January 30, 1950 to recommend to the Society that an invitation be extended to members of the Medico-Chirurgical Society to attend the regular scientific meetings of our Society. The Board also voted that a joint committee, consisting of representatives of the District Medical Society and the Medico-Chirurgical Society be established. This committee will devote its attention to community health projects in which both groups have a logical interest.

In a number of instances such projects had been initiated by the District Medical Society. Belatedly they were brought to the attention of the Medico-Chirurgical Society which should have been in on the planning. The Board believes that this situation should be remedied promptly.

AMA Dues: There seems to be considerable misunderstanding among our members in regard to the recently voted AMA dues. Here are a few facts which apparently are not too well known:

Physicians can continue as members of their state medical society without affiliating with the AMA. However, if they desire to become AMA members they must first be members of their state medical society.

Members wishing to become Fellows of the AMA and to receive the *Journal of the American Medical Association* are required to pay $12.00 in addition to their $25.00 dues.

The $25.00 dues voted by the AMA last December have been substituted for the assessment levied in 1949.

D. C. Chapter of Physicians' Forum: Last week numerous calls were received at the Society's Executive Offices in regard to a postcard which members had received from the "D. C. Chapter—Physicians' Forum," advising that AMA members will not be dropped for nonpayment of 1950 dues "until 30 days after January 1, 1951." Although factually correct, the obvious intent of this notice was to discourage the payment of AMA dues this year.

Facts about this incident which our members should know are these:

1. The D. C. Chapter of the Physicians' Forum is a small minority group favoring compulsory health insurance.

2. Some members of the Forum are members of our Society. However, the Forum has no other relationship with our organization and in no way speaks for it.

3. Communications from our Society on any subject of importance bear the names of the officers, board and committee members who sponsor them. There is no attempt to conceal the names of the official or officials responsible for these communications. Your Society and its officials deal in the open with its members and it commends this practice to the D. C. Chapter of the Physicians' Forum.

4. While our organization has not always agreed with the AMA it has been consistently loyal in its support of its parent organization, abiding by the decisions of the majority even when not so inclined. That is the way it should be in a democratic organization.

This is a crucial year for medicine and to withhold financial support now cannot be justified on any ground. Those in our ranks who endeavor to spread confusion and doubt are rendering a disservice to their profession. Honest differences of opinion are one thing; questionable practices to gain dubious advantage are quite another.

Conclusion: As previously stated, the next business meeting of the Society will be the Annual Business Meeting which is to be held on May 3. Unless urgent matters require your attention the Board will not schedule another business session before that time.

Respectfully submitted,
WILLIAM EARL CLARK, M.D., *Chairman*
WILLIAM M. BALLINGER, M.D.
WALTER FREEMAN, M.D.
WILLIAM P. HERBST, JR., M.D.
RAYMOND T. HOLDEN, M.D.
JOHN MINOR, M.D.
HERBERT P. RAMSEY, M.D.
THEODORE WIPRUD, *Secretary*

NOMINATIONS

The following nominees for elective offices were presented by the Nominating Committee at the business meeting of the Medical Society of the District of Columbia on March 1, 1950:

For President-elect:
Frank D. Costenbader
For First Vice President:
J. Bay Jacobs
For Second Vice President:
*Dorothy Donley-Dowd
† Helen Gladys Kain
For Member of Executive Board:
Walter Freeman
For Member of Board of Censors:
J. Ross Veal
For Delegate to American Medical Association:
Herbert P. Ramsey
For Alternate Delegate to American Medical Association:
Victor R. Alfaro

Elections to the above offices will be held at the annual business meeting of the Society, May 3, 1950.

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* Declined the nomination.

† Nominated from the floor.

PHYSICIAN-PATIENT RELATIONS AND BLUE CROSS ECONOMICS

WILLIAM S. McNARY

Chairman, Blue Cross Commission; Executive Vice President, Michigan Hospital Service

It is a good thing for all of us that our doctors, when they diagnose us and prescribe for us, do not go in for the sort of reasoning used by our professional social critics. When the doctor examines us he carefully guides himself by the knowledge that each of us is the product of history, of heredity, of the laws of organic growth and of circumstance. It never occurs to him, fortunately, to base his diagnosis and treatment on the premises that the individual is self-created, enjoys unlimited opportunity for self-determination, and must, therefore, be considered as being always in a state of willful responsibility for his condition.

We know that each society, each organic segment of any society, each profession, is also a product of history, of tradition, of social process and of circumstance. Taken either individually or collectively the doctors are certainly not free agents in regard to the traditions, rules, relationships and economics which govern their practice. Yet so many of our social critics, when they diagnose the doctor, appear to do so from the premise that he lives, learns and practices in a social and historic vacuum. This premise established, it follows as night follows day that the doctor is found willfully responsible for everything the social critic feels is or should be the doctor's responsibility.

If our doctors were to diagnose us from similar premises they would in all probability be forced to the conclusion that most of us are willful fools, or worse. One dreads to think what their prescription might be. And yet, diagnostic concepts on such assumptions could well prove to be a sort of mass solution to many of our problems.

In the troubled process we call history our age, like every age, has its special problems. Change, we know, is the eternal rule. This problem of eternal change involves another eternal problem. Always there are those who take the position that the contemporary problems have no counterpart in history. The solutions must, therefore, be novel and drastic. Opposed to them are those who find with the same unfailing consistency that the contemporary problems were never considered in the wisdom of their great-grandfathers. The problems, therefore, cannot be conceded as even existing. All talk of change is dangerous nonsense.

These two protagonists in the drama of change are always beautifully logical. Logic can be defined as the art of arranging facts in a reasoned or preferred order. It is a very useful art. The whole trouble is that facts, as we find them, are almost always in a state of disorder. Those of us who have to deal practically with the chronic disorder of fact, and are in no position to rearrange them for our inspired convenience, can only envy the happier men whose great and simple obligation it is to be logical.

I am no master of logic. In my business facts have to be taken as they come. The necessity for dealing with fact in disorder has taught me a number of things. It has taught me that it is often wise to go back a little to see if our problems really have no counterpart in history, as the one logical group insists, and, again, to investigate whether our great-grandfathers were as lacking in foresight as the second logical group would have us believe.

Our forefathers who shaped our Constitution were men of some experience with the problems of republican government. Let us see whether they had any awareness of the problem that has become the great internal national problem of our times.

In the *Federalist*, a compilation of papers by Alexander Hamilton, James Madison and John Jay, written to explain the purposes of the Federal Constitution, Hamilton made an observation that seems to me to be as much to the point today as it was in February, 1788.

"It is of great importance in a Republic," he said, "not only to guard the society against the oppression of its rulers, but to guard one part of the society against the injustice of the other part. Different interests necessarily exist in different classes of citizens. If a majority be united by a common interest, the rights of the minority will be insecure. There are but two methods of providing against this evil: the one by creating a will in the community independent of the majority, that is of the society itself; the other, by comprehending in the society so many different descriptions of citizens as will render an unjust combination of a majority of the whole very improbable, if not impractical."

Until recently the rights and interests of our different social groups were made secure largely by the fact that none of these social groups—farmers, businessmen, workers, professional people—was large enough to form a united and dangerous majority. This has changed under the conditions of modern industrial society. Common problems and common necessities have shaped the kind of majority that Hamilton feared. The philosophy of the new majority is threatening us with a peaceful but, nevertheless, real and complete social revolution by the ballot. We can say, therefore, that Hamilton's second condition for protecting minorities against injustice is no longer operative.

We must also recognize that we have not done much about Hamilton's first condition, that of "creating a will in the community independent of the majority. . . ." That means creating by education, training and example an inbred active democratic consciousness that would make us more resistant to the appeals of the demagogue. We have not done very much about that. Democratic elections have becoming increasingly and alarmingly "mandates."

We can see that our great problem was foreseen in our history 162 years ago.

The medical profession has been made fully aware of the dangers inherent in its minority status before the spirit of the new majority. We are facing the very real peril of seeing democratic process made the tyrannical tool of ruthless majority impulse, with the rights and interests of one minority group after another "mandated" into oblivion.

To cope with this danger we must first of all be realistic. Political process must be visualized as an everlasting struggle for the privilege of shaping and managing the instrumentalities of social, economic and political life. New problems, new necessities, demand new instrumentalities. It is on the issue of the new instrumentalities that the battle between the majority and minority is joined. The new problems must be met. We are in a strong position to defeat the instrumentality proposed by the majority, when it is found unjust to the interests and right of minority groups, only if we have an alternative to offer. If the majority cannot make the pressure of the problems that has shaped it the excuse for ignoring the interests and rights of the minority, the minority, in the light of the same democratic morality, cannot make the defense of its rights and interests the excuse for ignoring the problems of the majority.

Reciprocity is the cornerstone of the democratic relationship between majority and minority.

To save democracy we must do much more than we have been doing to meet Hamilton's first condition. We must strive to create a guiding democratic consciousness, a democratic morality. Such a consciousness, such a morality, cannot be created with words and sentiments. It must find its example in action. It must find its faith in the realities of democratic life. It must derive its disciplines through the spirit of the community life about it. The evidence for such a faith, the basis for such disciplines, must be offered not in words but in the instrumentalities we shape to meet the ever new problems of democratic life.

It is a matter of deep pride to me to be able to say that the Blue Cross is such an instrumentality. It meets the problem of providing the necessary security the millions of Americans must have against today's high hospital and medical costs. And it offers proof of its faith in the political and moral principles of our system by meeting the need of the many without inflicting injustice on the rights and interests of any minority group. Blue Cross, as I see it, and as more and more doctors are beginning to see it, is not merely an instrument for providing health insurance. Health insurance can be provided in a lot of different ways, if one is indifferent to the mechanics. Blue Cross is the democratic instrumentality for the job. It is an active and practical expression of the democratic morality we must consider binding upon both the majority and the minority, if democracy is to survive.

For Blue Cross to succeed its economics must be sound. The average doctor has an understandable feeling that the financial problems of the hospital are a little removed from the sphere of his immediate interests. Because he thinks Blue Cross is concerned primarily with hospital costs, he carries something of the same attitude of remoteness into his thinking about Blue Cross. We, in our position, have had enough experience with this attitude to appreciate its dangers.

It is the doctor who decides whether a Blue Cross patient is to go to the hospital or not. It is the doctor who determines the treatment and, therefore, what hospital services the patient is to have. It is the doctor who decides when the patient is to leave the hospital. The doctor, in short, and his idea of the role of Blue Cross in his relationship with his patients play an all-important role in Blue Cross economics.

The doctor's awareness of what Blue Cross means to him, as well as his idea of how Blue Cross is to be used to serve the patient, can go very far either in making or breaking Blue Cross. We cannot be at the patient's bedside with the doctor to advise either how they should regard Blue Cross. Yet, although invisible, Blue Cross is in reality there. Its success or failure hangs in the balance daily at the thousands of bedsides where it finds expression in the relationship between physician and patient.

There are four major points the doctor should remember in his thinking about and in his attitude toward Blue Cross:

1. The average patient does not go in for fine distinctions between medical and hospital costs. To the average citizen the doctor is the central figure in the picture. High hospital costs will be reflected in the patient's attitude toward the doctor, and will influence his thinking on the question of socialized medicine. What Blue Cross costs the patient will affect the doctor. Blue Cross economics are, therefore, of direct concern to the doctor.

2. The doctor should know what Blue Cross offers the patient. He should make it a point to be familiar, in a general way at least, with the conditions of the individual patient's contract. He should know that to be in a position to help his patient get all the needed benefits. It is good physician-patient relations to make the patient feel that the doctor is a fully interested and conscientious participator, rather than a slightly interested outsider. If the doctor is responsible for taking the patient to a nonparticipating hospital, it would be best to tell the patient in advance why he prefers that hospital and what possible difference there may be in costs.

We know that it is bad for the doctor, bad for the hospital, and bad for Blue Cross to have the patient discover when it is too late that he had not received all of the expected benefits under his contract. It leaves the impression with the patient that all concerned have not been on the up-and-up with him.

3. The doctor should be very careful to avoid creating any illusions in the patient's mind about the possible benefits he can expect under his Blue Cross contract. That is another reason why the doctor should know more about Blue Cross. Patients have a natural confidence in the doctor. A chance word, a vague promise to try to gain some special advantage creates an expectation that sours with disappointment. The disappointed patient is more apt to believe that he had been discriminated against rather than to accept the final explanation that the doctor had been mistaken.

4. The doctor must train himself to remember when he has the kindly impulse to tell the patient to stay in the hospital an extra day or two, since Blue Cross is paying for it, that a hundred other doctors may have had the same impulse that same day. Added up, the cost of these hundreds of unnecessary days in the hospital can easily price Blue Cross out of existence. Blue Cross must pay for everything the patient gets, and Blue Cross must get the money from its subscribers.

Aside from the very serious economic question involved, there is the question of proper professional attitude before the patient. We Americans suffer from a curious attitude toward corporate enterprises which expresses itself by our thinking nothing at all of nicking them for a few extras if we can get away with it. Blue Cross should mean too much to the doctor for him to encourage this attitude.

Blue Cross has become an important reality in physician-patient relations. The doctor must reckon with it. It is best that he see it in its full significance.

The case for a Nation-wide system of health insurance has been established. There is no need to tell the doctors of Michigan that this is an irreversible fact. They have been in the forefront of the progressive medical forces that have anticipated this development and helped meet it. What is at issue is the type of health insurance system we are to have. Will it be a wasteful system, imposed by the will of an impulsive majority, without any regard for the rights and interests of the minorities involved? Or will it be a system in keeping with our social and political traditions?

Blue Cross is not debating the question. It is building the answer. However, no matter how good our idea, our economics must be as good as our idea if we are to win.

By making this fact a guiding consideration in their relationships with their patients the doctors can help Blue Cross maintain the strong economic base it must have to serve successfully the interests of the whole American community.

DOCTORS AND THE LAW

JAMES A. GANNON, M.D.

Washington

Doctors are individualists. They dislike regulation and restriction. They have an antipathy to forms which require filling out. They want to practice medicine according to their best judgment and to confine their business to their patients. It is a commentary on the contradictions of life that there is probably no class of individuals who are more regulated, more restricted, and who are required to fill out more forms than the members of the medical profession. For instance, the doctor who desires hospital privileges must fill out a form. When he sends his patient to the hospital he must write a history, write progress notes, write special prescriptions for narcotics, and write medical/surgical details; when the patient leaves the hospital he must be sure that all the required forms are filled out and signed. In his office he must fill out birth, death, insurance and disability certificates; also Government forms pertaining to income, social security, workmen's compensation, the prescribing or dispensing of narcotics, the yearly tax to continue to practice, etc., etc., etc. The law takes a great interest in his activities.

Before the ink is dry on his license to practice medicine, the doctor should realize that he must conduct his practice in conformity with the regulations laid down by the courts of the community in which he practices. His certificates regarding births, deaths, the state of the health of his patients, and other matters become legal documents after he has signed them. His methods of treatment must not be unlike those of other doctors in his community. He may not experiment with his patients. Almost at once he finds it necessary to protect his pocketbook and his liberty by the purchase of many different forms of insurance, and his total premiums amount to a considerable sum. Because of the high cost of living and many seen and unseen city, county, state and Federal taxes, he realizes that about the only way he can create an estate to protect his family in case of his death is to invest in life insurance. Then he needs to insure himself against accident and disease, because when his activities cease so does his income. Of course, he must have hospitalization insurance. Liability insurance is required to cover patients who may be hurt coming into and out of his office. His automobile must be insured to protect him against accident claims, and the contents of his home and his automobile must be protected by insurance against theft and fire. Probably the most important insurance policy he must buy is one which will protect him in case he is sued for malpractice. The dates for premium payments on these policies fall at irregular intervals and cause inconvenience. Some enterprising insurance organization should write a combined policy, the premium date of which would occur regularly. The doctor could then know the worst and be prepared for it on a definite date.

The doctor should keep in mind the three simple postulates which he learned when he studied medical jurisprudence, and if he follows them he will not become involved in malpractice suits.

Postulate number one provides that he must have "sufficient knowledge and skill." This means that his knowledge and skill must be equal to that possessed by the average doctor in the community in which he practices or in another community of like size. A doctor in Washington is expected to know more and to be more skillful than the doctor in a remote, rural community. The doctor who attempts to perform an operation which his experience does not justify can be sued successfully for malpractice if damage results and it is proven that he does not possess the necessary knowledge and skill to perform that operation. The doctor must frankly acknowledge his limitations to himself.

Postulate number two provides that the doctor must exercise "due diligence." This means that he must be reasonably attentive to the patient during his treatment. He must see the patient frequently enough to keep informed at all times as to his condition. He must use laboratories (X-ray and pathologic) when the occasion requires. He must not leave town shortly after he has operated upon a patient without supplying a satisfactory substitute and without advising his patient of his intention to do so. Treatment by a physician must be tested by rules and principles of his school of medicine, but he must exercise ordinary care and skill of the profession, considering modern advancement and learning.

Postulate number three provides that the doctor must exercise "best judgment." This means that a patient may not be treated while the doctor is under the influence of alcohol or other drug and that he must not prescribe for a patient if the state of the doctor's health is such as to impair his judgment. About 90 per cent of malpractice suits against doctors can be traced to criticism real or implied by other doctors. A mere shrug of the shoulders by the critic is often sufficient to start such a suit. Doctors should realize that knocking another doctor's work hurts not only the other doctor but harms the whole profession. The wise doctor keeps careful records, copies of prescriptions, etc., in order to avoid embarrassment in case he should be forced to testify in court.

What the doctor learns from his patient's history and physical examination is confidential and may not be divulged to anyone without permission of the patient, except that under certain conditions the doctor may give this information in court. For instance, doctors who are employed by defendants in law suits and who examine patients to determine the presence and extent of an illness or injury may state in court what they have discovered after they have interviewed and examined the patients.

The doctor may be required to testify in court as an ordinary witness if he has treated an injured or an ill patient. If after being called as an ordinary witness he is qualified as an expert, he must answer hypothetical questions and other questions which involve special knowledge and judgment in the interest of justice, and without extra fee, if instructed to do so by the judge, while an expert medical witness, called in a case, may charge what he considers his services worth. The expert may not have had the patient under his care, but he examines the patient before the trial for the purpose of testifying as to his opinion concerning the effect of the illness or the accident on the patient.

A subpoena to appear in court must be delivered personally to the doctor by an official of the court (usually the marshal or his deputy). Merely leaving a subpoena at the doctor's office or a telephone message stating that a subpoena has been issued does not oblige the doctor to appear in court.

I am informed by the President of the Bar Association of the District of Columbia that under rule 45 (C) of the Federal Rules of Civil Procedure, service of a subpoena could be legally rejected unless accompanied by a tender of the fees for one day's attendance and the mileage allowed by law. For his own protection the person so refusing should advise the process server of the specific ground for refusal to accept service.

The doctor would be wise, however, to refrain from being too technical in this matter lest justice be obstructed and the time of the court be wasted. Lawyers could encourage good will and coöperation among doctors by calling them on the phone and arranging with them to be in court at a time which would be mutually convenient. In order to insure attendance a subpoena is necessary, but the doctor should have sufficient time to arrange his affairs in order to avoid inconvenience or even danger to his patients.

An operation may not be performed without the patient's consent, and one performed without consent, expressed or implied, is a technical battery or trespass for which the surgeon is liable. A surgeon may not perform an operation different in kind from that consented to or one involving risk and results not contemplated. Therefore, patients about to be operated upon should be required to sign a statement which gives permission for the surgeon to perform any operation which may be necessary for the relief of the patient. Two witnesses should also sign. If this is not done the surgeon may have to pay damages for removing a diseased organ which is found while operating for another condition. A diseased right ovary may be found during an operation for acute appendicitis and it may not be removed without permission of the patient.

Doctors sometimes try to save expense to the patient by omitting examinations by the X-ray and the pathologic laboratories. This consideration on the part of the doctor often boomerangs, and the doctor finds himself sued by the object of his solicitation for the lack of "due diligence."

There is no legal obligation for a doctor to treat anybody whom he does not wish to treat. He has a moral obligation, however, to relieve suffering at the scene of an accident or at the patient's home if another doctor is not available. As soon as a doctor, or his representative, agrees, over the telephone or otherwise, to attend a patient, the physician impliedly agrees that no injury to the patient will result from want of proper skill, care or diligence. If the doctor is guilty of negligence he is legally responsible to the patient. For instance, if the doctor answers the telephone at 2:00 a.m. and agrees to call on a distressed patient at once, and then goes to sleep until morning, he may be liable to suit for negligence if the patient is harmed by the delay. A physician cannot discharge himself from a case and relieve himself of responsibility for it by simply abandoning it or staying away without notice to the patient. This would be especially true where other medical help is not readily obtainable. The relation between a physician or surgeon and his patient is one of trust and confidence and is one arising out of a contract, expressed or implied; the physician or surgeon impliedly contracts that he possesses and will use, in the treatment of his patient, a reasonable degree of skill and learning, such as is possessed by the average of those in his profession, and that he will exercise ordinary and reasonable care.

There is no law which prevents a doctor from prescribing for or operating upon persons in his immediate family. He usually does not do so, however, because he feels that his personal interest and anxiety might jeopardize the successful outcome of the case.

Minors may not be operated upon without the consent of parents or the legal guardian, except in an emergency to save life, and after an attempt to communicate with such parents or the guardian. While a surgeon is justified in performing an operation upon a married woman with her consent, when he deems the operation necessary, whether her husband consents or not, the wise doctor will avoid the possibility of litigation in such a situation by also securing the husband's consent.

Prescribing or dispensing narcotics may lead to unpleasant consequences for the doctor. He should keep careful records in this regard and should limit the dosage and amount to what is immediately necessary. Inspectors frequently examine the pharmacist's prescription files and they investigate all prescriptions which appear to them to be too generous. The doctor should not relieve drug addicts in his office but should refer them to a hospital.

The doctor should be careful in his attempts to collect delinquent accounts. Postcards are illegal for this purpose. Threatening letters may involve him in serious litigation. The wise doctor will allow his attorney to compose the letter which he intends to mail to the delinquent patient.

Female patients should always be examined in the presence of a witness in order to avoid false accusation and subsequent legal involvement.

If a doctor is summoned to examine a servant by the master he may not do so without the permission of the servant. Any attempt to do so constitutes an assault or battery for which the doctor might be held liable.

The doctor may not sign a death certificate unless he has attended the deceased at least 24 hours before death. Such cases must be referred to the coroner. Unusual circumstances connected with any death should be reported to the coroner.

If a doctor is called to treat an abortion he should protect himself by sending the patient to the hospital at once so that the circumstances of his connection with the case will be a matter of record. If such a patient is in danger of death the coroner should be notified early enough for him to attempt to determine the reason for the abortion.

Some localities require the doctor to report at once to the police any gunshot or stab wound he has treated.

It will be noted from these observations that the doctor should keep himself informed as to the laws which pertain to his practice and that he should employ an attorney from whom he can seek advice in order to avoid legal difficulties.

1915 Biltmore Street, N.W.

IMPORTANT NOTICE

Identity cards for diabetics and others whose ailments sometimes resemble intoxication were issued by the Washington Metropolitan Police Department on January 20. Major Robert J. Barrett, Superintendent of Police, said the identification cards will be issued on the request of a physician or a member of the ill person's family. Duplicate records of those issued will be kept at police headquarters, precinct stations and hospitals for immediate reference. The Medical Society of the District of Columbia, the Naval Medical Center at Bethesda, and the Army Medical Center will issue cards to physicians and to their patients on request. Cards can also be obtained at police headquarters.

CIVILIAN PHYSICIANS ELIGIBLE FOR PACIFIC ISLAND APPOINTMENTS

The President has decided that administrative responsibility for Guam and American Samoa, which are United States possessions, and for the Trust Territory of the Pacific Islands, which comprises the former Japanese-mandated Marshall, Caroline, and Marianas Islands, will be transferred from the Navy Department to the Department of the Interior. An Executive Order makes this transfer of responsibility effective on Guam on July 1, 1950, and on American Samoa and the Trust Territory, July 1, 1951.

It is planned that naval officers and enlisted personnel serving in these island governments will be replaced with civilians before the transfer dates. Each island area has hospital facilities, small island or village dispensaries, and public health organizations. Medical work in these islands, in view of the great need for health services, the varied nature of medical problems, and the differing cultures of the people, offers an important challenge to doctors and other medical personnel.

Guam has a population of about 75,000, of whom 27,000 are Guamanians. The Guam Memorial Hospital, a temporary structure with 250 beds, including TB wards and a staff of 9 medical officers, serves primarily the Guamanian population. It is operated by the Guam Government and shares some facilities in common with the adjoining Naval hospital. In this medical center are schools for native medical assistants, dental assistants and nurses, which are attended by Guamanians, Samoans and Trust Territory islanders. It has been planned that a per-

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, headed by Dr. Henry A. Grennan, through which requests for speakers for lay groups are filled.

Date	*Speaker*	*Subject or Title*	*Organization*
February 2	Dr. Herbert P. Ramsey	Socialized Medicine	Kiwanis Club of the District of Columbia
February 2	Dr. Herbert P. Ramsey	Clean Water, illustrated with color film	Corinthian Yacht Club
February 8	Dr. Isadore Rodis	Factors which Influence the Child's World	Arlington-Fairfax Chapter of Hadassah
February 14	Dr. Herbert P. Ramsey	Clean Water, illustrated with color film	Washington Round Table of the Explorers' Club of New York
February 16	Dr. Henry G. Laughlin	Rejection	Child Study Group, Alta Vista School
February 16	Dr. Winfred Overholser	Modern Day Marriage Problems	George Washington University Chapter of Mortar Board
February 23	Dr. Herbert P. Ramsey	Our Medico-Economic Needs	Kiwanis Club of Alexandria
February 23	Dr. Julius Schreiber	Why Do We Hate?	Washington Fellowship, All Souls Unitarian Church
March 5	Dr. Henry G. Laughlin	What Is Psychiatry?	Bethesda (Md.) Y.W.C.A.
March 7	Dr. Anna Coyne Todd	Mental Hygiene	Oxon Hill District Citizens' Association
March 10	Dr. Ruth E. Stocking	Sex Education of Young Children	Sunshine Class (mother's group), Congress Heights Methodist Church
March 13	Dr. Maurice H. Herzmark	My Aching Back	Mt. Pleasant Citizens' Association
March 16	Dr. Thorval L. Hickman	Communicable Diseases of Children	Davis School Parent-Teachers Association

manent, fully-equipped hospital will be built for civilians in Guam in the near future.

American Samoa has a population of over 19,000, almost all of whom are Samoans. The island government maintains a 200-bed hospital, built in 1945–46, and a staff of 5 medical officers. Since 1912, a training school for Samoan registered nurses has been in operation.

The Trust Territory has been under American administration since the occupation of the islands during and after World War II. The territorial government has established six 50–75 bed general dispensaries, each with a staff of 2 or 3 medical officers. These hospitals or dispensaries are located at Saipan in the Marianas, Yap and Koror in the Western Carolines, Truk and Ponape in the Eastern Carolines, and Majuro in the Marshalls. In the smaller islands health work is cared for by native health and nurse aides. A small leprosarium is maintained at Tinian in the Marianas.

In establishing medical positions for the governments of these three areas, the Department of the Interior will follow Federal classifications, but applicants need not be on a Civil Service register to be eligible for appointment. Positions for physicians, public health officers, hospital administrators, laboratory technicians, pharmacy technicians, and nurses are available. Salaries for doctors will range from $6,400 to $8,800 per annum. A post differential of 25 per cent in addition to salary is allowed at present for employees stationed in the islands. Transportation is paid for employees and their dependents. Housing is excellent in Samoa and, though of an advanced base type in Guam and the Trust Territory, is adequate for tropical conditions. Houses are furnished and rents are reasonable.

Further information regarding opportunities for health work in the Pacific Islands can be obtained from the Division of Territories and Island Possessions, Department of the Interior, Washington 25, D. C.

ARMY MEDICAL LIBRARY'S INDEX-CATALOGUE TO BE CHANGED*

A revision of the Army Medical Library's plans for the publication of medical indexes toward a system more in keeping with modern medical indexing requirements will be made in the near future, according to an announcement by Major General R. W. Bliss, the Army Surgeon General.

"The Index-Catalogue of the Library of the Surgeon General's Office," one of the two indexes to medical literature published by the Library, lists alphabetically all author, book, pamphlet and journal article titles of the medical and allied fields held by the Library.

Since from one to two years are required to publish one volume under the present system, the alphabetical sequence of publication makes it necessary to defer publication of many entries for periods up to 20 years, thus greatly diminishing the social utility of the work. The last complete series, or alphabetical cycle, listing all entries from A to Z, required ten volumes and 14 years to prepare and publish. Three such complete series have been published since the "Index-Catalogue" was begun in 1880.

Volume eleven of the fourth series, currently in preparation, will be completed. Following publication of this volume, the Army Medical Library plans to publish a volume or volumes that will make the record of its monographic holdings complete up to the mid-century mark, and beyond that, to publish selectively the most useful portion of the vast backlog of over 1,750,000 yet unpublished subject references that have accumulated. Provisions for a continuing record of the Library's monographic holdings has been assured in the form of an annual supplement to the Library of Congress Catalog of Printed Cards.

At the same time, the Library's *Current List of Medical Literature* will be augmented and improved to provide more effective service. An author index will be added, a standard list of journals to be covered regularly will be introduced, classification by broad journal groupings will be abandoned, the format and frequency of publication may be altered, and a cumulative subject index will be provided.

(*Continued on page 236*)

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* EDITOR'S NOTE: Dr. Henry C. Macatee, distinguished physician and scholar, comments on this proposed change in the publication of medical indexes in an editorial in this issue of the MEDICAL ANNALS.

News and Personals

The International and Fourth American Congress on Obstetrics and Gynecology will be held at the Hotel Statler, New York, May 15–19, 1950. Dr. John L. Parks, of Washington, is Chairman of the Scientific and Educational Exhibit Committee. Many foreign countries will be represented on the scientific program.

The Fifth International Cancer Congress will be held in Paris at the Sorbonne during the month of July 1950. It will coincide with the commemorative manifestations of the 50th anniversary of the discovery of radium by Pierre and Marie Curie. The Congress proper will be held from July 17 to 21. Correspondence concerning the Congress may be addressed to the Union Internationale contre le Cancer, 6, avenue Marceau, Paris (8^{e}).

The Eastern Sectional Meeting of the American Congress of Physical Medicine will convene, Saturday, April 29, at George Washington University Hospital. Registration will open at 1 p.m.; the scientific meetings will begin at 2 p.m.

The following papers will be presented during the afternoon:

"Rehabilitation in Chest Surgery," BRIAN BLADES, M.D., Professor of Surgery, George Washington University School of Medicine; Director of Thoracic Surgery, Veterans Administration, and Consulting Surgeon, Walter Reed General Hospital

"The Use and Abuse of Physical Therapeutic Measures in Peripheral Vascular Diseases," ANDREW G. PRANDONI, M.D., Associate in Medicine, George Washington University School of Medicine; Consultant, Walter Reed General Hospital

"Fractures at the Elbow—Indications and Contraindications of Physical Therapeutic Measures," MILTON C. COBEY, M.D., Associate Professor of Orthopedic Surgery, Georgetown University School of Medicine

"Contraindications for Physical Medicine in Neurologic Conditions," WALTER FREEMAN, M.D., Professor of Neurology, George Washington University School of Medicine

"Rheumatoid Spondylitis," DARRELL C. CRAIN, M.D., Clinical Instructor in Medicine, Georgetown University School of Medicine

Registrants will meet for dinner at 6:30 p.m. at the Willard Hotel. The evening session, beginning at 7:30 p.m., will be devoted to a panel-symposium on "Shoulder." Dr. William H. Schmidt, Director of the Department of Physical Medicine, Jefferson Medical College and Hospital, Philadelphia, will be the Moderator. Three papers will be presented:

"Functional Anatomy of the Shoulder," OTHMAR SOLNITSKY, M.D., Professor of Anatomy, Georgetown University School of Medicine

"Orthopedic Aspects of Shoulder Disabilities," CARL BERG, M.D., Assistant Clinical Professor of Orthopedic Surgery, George Washington University School of Medicine

"Physical Medicine in the Treatment of Shoulder Disabilities," K. G. HANSSON, M.D., Associate Professor of Cornell University Medical College; Director of Physical Medicine, Hospital for Special Surgery and New York Hospital

All members of the District Medical Society, other professional personnel and their guests are welcome to attend these meetings.

The National Tuberculosis Association, the American Trudeau Society, and the National Conference of Tuberculosis Secretaries will convene jointly for their annual meetings at the Hotel Statler, Washington, D. C., April 24–28. A total registration of 2,500 physicians and guests is expected. The preliminary program is published in the *Bulletin of the National Tuberculosis Association* for February, 1950.

The medical and public health fields from all sections of the United States will be represented in the program. Dr. Leonard A. Scheele, Surgeon General of the Public Health Service, will address a joint session of the Medical and Public Health Sections, April 25, on "Public Health—Fifty Years from Tomorrow." Among other Washington physicians who will appear on the program are Drs. William LeRoy Dunn, Brian Blades, John W. Trenis, Thomas McP. Brown, Monroe J. Romansky, John M. Evans, James Feffer, Albert D. Kistin, J. Winthrop Peabody, John J. Curry, Sol Katz, and Edgar W. Davis.

The Philadelphia County Medical Society will hold its Fourteenth Annual Postgraduate Institute at the Bellevue-Stratford Hotel in Philadelphia, April 25–28, 1950. There will be two special evening sessions at the hotel, one consisting of a Clinical Pathological Conference and the other dealing with problems of alcoholism.

The registration fee is $10.00, payable in advance or at the time of registration. Physicians who have not received a copy of the preliminary program may secure one by writing to Dr. Gilson Colby Engel, Director, 301 South 21st Street, Philadelphia.

The American Board of Obstetrics and Gynecology announces that the general oral and pathology examinations (Part II) for all candidates will be conducted at The Shelburne, Atlantic City, New Jersey, by the entire Board from Sunday, May 21, through Saturday, May 28, 1950.

Applications are now being received for the 1951 examinations. Application forms and bulletins may be requested from Dr. Paul Titus, Secretary of the Board, 1015 Highland Building, Pittsburgh 6, Penna.

The Section on Otolaryngology will hold its final meeting of the season, May 16. The guest speaker will be Dr. Francis L. Lederer, Professor of Otolaryngology of the University of Illinois; his subject, "ENT Essentially Negative—Avoidance of Pitfalls in Otolaryngology."

Mr. William F. Irwin, Executive Secretary of the Philadelphia County Medical Society, writes that his Society is making up a tour to the West Coast to attend the AMA Convention in June, which will be routed through Washington. He invites any Washington physicians who may be interested in the same trip to join the Philadelphia group.

The tour will pass through Washington via the B & O, June 21. En route passengers will visit the Carlsbad Caverns and the Grand Canyon, arriving in San Francisco, June 25. After leaving San Francisco, June 30, they will visit the Yosemite National Park, Los Angeles and Hollywood, the Mission Inn at Riverside, Calif., and Colorado Springs. They will return through Washington on July 8.

Arrangements for the trip should be made with Mr. W. P. Cox, Division Passenger Agent, Baltimore & Ohio Railroad, 151 South Broad Street, Philadelphia.

CALENDAR OF MEETINGS

March 1	Business Meeting of Society
	Subcommittee on Preliminary Estimates of Committee on Emergency Medical Service
March 2	Section on Neurology and Psychiatry
	Subcommittee on Tuberculosis
	Executive Committee, Gallinger Municipal Hospital
March 3	Medical Bureau Committee
March 6	Subcommittee on Diabetes
March 7	Membership Luncheon
	Registered X-ray Technicians of Washington
March 8	Scientific Meeting of Society
	Woman's Auxiliary
	Health Section, United Community Services
March 9	Special Committee on Child Health Study
	Washington Heart Association
March 10	Grievance Committee
	Committee on Postgraduate Education
	Subcommittee on Preliminary Estimates of Committee on EMS
March 11	Joint meeting of Washington Psychiatric and Washington Psychoanalytic Societies
	Washington School of Psychiatry
March 14	Membership Luncheon
	Medical Officers' Reserve Units

(Meetings held from March 16–31 will appear in the May issue)

Dedication of the new headquarters of the Pharmacopeia of the United States at 46 Park Avenue, New York City, was held on April 12. The building was open to the public but the formal dedication ceremony took place in the Hall of the Morgan Memorial Library just around the corner at 36th Street and Madison Avenue. Addresses were made by Dr. Paul B. Dunbar, Commissioner of Food and Drugs, of Washington, D. C., and Dr. William G. Workman, Director of the National Institutes of Health, Bethesda, Md.

The United States Pharmacopeia was established in 1820 and provides the standards for the most important medicines used in the United States and in a number of Pan American countries. It is revised each five years by a national voluntary committee of medical and pharmaceutical experts and is accepted by Congress, under the Food, Drug and Cosmetic Act. Its standards are enforced by the Federal Food and Drug Administration and by many state and municipal health agencies.

The Decennial Meeting of the U.S.P. Convention will be held in Washington, D. C., May 9 and 10, 1950, at the Hotel Statler.

For its May 11 meeting the **Scientific Council of the Washington Heart Association** is sponsoring a program of studies originating in Washington and the vicinity. The meeting will be held in the District Medical Society's building beginning at 8:15 p.m. All interested physicians are invited to attend.

Physicians, either members or nonmembers of the Heart Association, and others interested in the cardiovascular system are invited to participate in the presentations and discussions. The subjects may include laboratory studies, clinical studies, case reports and reviews. Each presentation will be limited to 10 minutes with an additional 5 minutes for questions and discussion. Abstracts of proposed presentations should be submitted to the Chairman of the Program Committee, Dr. Albert D. Kistin, 3002 Rodman Street, N.W., Washington, D. C., by April 20, 1950.

Formal approval of the new **Alcoholic Clinic** was given by the District Commissioners, February 14. Dr. Leopold E. Wexberg is Director of the Clinic, which is located at 2227 M Street, N.W. Under the 1947 Congressional Act creating the Clinic, the court may commit a chronic alcoholic to the Clinic for treatment for periods up to 90 days, and may repeat this if, in the opinion of the Clinic officials, the patient needs further treatment. The Clinic can take four commitments each weekday at present, up to a total of 120. A budget of $83,000 has been approved for the program, which includes $9,450 for payments to hospitals caring for those patients who need institutional care. The District has had a voluntary alcoholic clinic since 1945.

A series of eight programs, **"Alcoholism in Washington,"** are being broadcast over WMAL, from 9:45 to 10:00 p.m., on Tuesdays. The series, which began March 7, is being conducted by Gunnar Back, former CBS news commentator. The programs are designed to show that the alcoholic is a sick person but can recover, and that alcoholism is a public health problem. They are sponsored by the District Health Department and the Alcoholic Clinic, the Washington Committee for Education on Alcoholism, and *The Evening Star* and WMAL.

Five experts on various aspects of alcoholism held a roundtable discussion over WMAL on Monday evening, March 6, as an introduction to the first program. Members of the panel were Dr. Daniel L. Seckinger, District Health Officer; Dr. Leopold E. Wexberg, Director of the Alcoholic Clinic; Judge Walter Casey of Municipal Court; Mrs. George Thorpe, Chairman of the local American Automobile Association's Traffic Safety Committee; and Mrs. Jane Thorpe Williams, Executive Secretary of the Washington Committee for Education on Alcoholism.

An Advisory Committee to the Home Care Program of the District Health Department and the United States Public Health Service has been announced. The Committee will counsel in over-all aims and objectives of the pilot program for the care of chronic illness in patients discharged from Gallinger Municipal Hospital. Under the program, medical care and auxiliary services in the home will be furnished to indigent chronic patients.

Health Officer Daniel L. Seckinger appointed the following committee members: Dr. Harry F. Dowling, who is Chairman of the District Medical Society's Committee on Public Health; Dr. Harold Jeghers, Professor of Medicine at Georgetown University School of Medicine and Head of the Georgetown Service at Gallinger Municipal Hospital; Dr. Paul B. Cornely, Medical Director of Freedmen's Hospital; Theodore Wiprud, Secretary of the District Medical Society; and Miss Marie E. Wallace, representing the Graduate Nurses' Association.

Continuation grants for three cancer research projects in the District of Columbia were included among the Public Health Service grants announced on March 13 by Federal Security Administrator Ewing.

Georgetown University School of Medicine will receive $4,500 to enable Dr. Alexander G. Karczmar to continue the study of "the action of radiomimetic and carcinogenic substances on tissue regeneration."

A sum of $9,936 will go to George Washington University to be used by Dr. Paul K. Smith for "studies on the toxicity, metabolism and mechanism of action of substances that may be useful in the control of tumor growth."

At the American Registry of Pathology, Dr. Hugh G. Grady will continue his work on "steroid treatment of breast carcinoma" with a grant of $5,400.

More than 400 members and guests attended the **24th Annual Banquet and Alumni Reunion of George Washington University Medical Society** on February 25 at the Mayflower Hotel.

Dr. Herbert S. Gates, President of the Society, presided during the program which followed the banquet. Greetings were extended to guests by Dr. Walter A. Bloedorn, Dean of the School of Medicine, and by Dr. Cloyd Heck Marvin, President of the University.

The "Kickoff Remarks" by John H. ("Bo") Rowland, Head Football Coach, afforded considerable amusement.

The outstanding feature of the Society's banquet each year is the presentation of the Award of Merit to an alumnus who has distinguished himself in his profession. The recipient this year was **Dr. Daniel LeRay Borden,** Past President of the George Washington University Medical Society, the Washington Academy of Surgery, and the Medical Society of the District of Columbia. Dr. Roger M. Choisser, Chairman of the Committee on Awards, made the formal presentation speech; Dr. Gates conferred upon Dr. Borden a gold key and an engraved scroll, signed by the President and Secretary of the Society, "in recognition of his distinguished service and outstanding contributions to the field of medicine." He was cited for his service during the War, his contributions to surgical literature, and for his pioneer work in photographing surgical operating procedures for teaching purposes.

Dr. Borden is Clinical Professor of Surgery at the University, having been a member of the faculty since 1912. He served in the Medical Corps of the U. S. Army during both World Wars. During World War II he was Chief Surgeon at the Station Hospital, Fort Meade, Md., and later Commanding Officer of the Station Hospital at Fort Eustis, Va., with the rank of Colonel, which he now holds in the Reserve Corps.

The evening was pleasantly concluded with a speech by Dr. Elmer Louis Kayser, Director of the Division of University Students and Senior Professor of European History. Using the engaging title, "It Has Happened Before," Dr. Kayser delved into some early Roman history and found there examples of ideological warfare, sit-down strikes, postwar moral and economic upheavals, housing shortage, and the quest for veterans' votes—the same problems that beset the present state.

Dr. H. J. Russell McNitt was General Chairman of the Committee on Arrangements for the banquet; Dr. John H. Lyons, General Vice Chairman; Dr. Richard H. Fischer, Treasurer; and Mrs. Anna Sellner Ayers, Secretary. Vice Chairmen of the Banquet Committee were Drs. Fischer, W. Ross Morris, Herman Hoffman, and Ernest A. Gould.

Provision for home care for cancer patients is being set up in Washington under the **Alexander and Margaret Stewart trust fund.** Grants of $25,000 each have been given to George Washington and Georgetown Universities from the trust fund established by the late Mrs. Mary E. Stewart in memory of her parents, Alexander and Margaret Stewart.

In her will, Mrs. Stewart, who died October 16, 1947, provided a trust fund of approximately $4,000,000, the income from which is to be used for cancer research and for the care of cancer patients. Other initial grants announced on February 17 were $5,000 to the Washington Home for Incurables for care of cancer patients and $30,000 to the University of Wisconsin for cancer research at its McArdle Memorial Laboratory in Madison, Wisconsin.

The cancer home-care program in the District of Columbia is designed to help some 40 patients, fund trustees said. It will be made available primarily to those unable to pay anything towards their own care, but is also intended for those who can pay all or part of the costs but who prefer to be treated and cared for in their own homes. Under the plans of the two Universities, they will supply, if necessary, hospital beds and other sickroom equipment. The patient will be visited as often as necessary by a doctor and by a nurse of the Instructive Visiting Nurse

Society. At George Washington the service is set up in the Department of Surgery under the direction of Dr. Brian Blades, Professor of Surgery, and Dr. Calvin T. Klopp, Assistant Professor of Surgery and Cancer Coördinator. At Georgetown the program will be under the School's Cancer Committee, composed of the Reverend Paul A. McNally, S.J., Dean of the Medical School; Dr. Murray M. Copeland, Committee Chairman; and Drs. Robert J. Coffey, Charles F. Geshickter and Harold J. Jeghers. The University grants are for one year. The projects will undoubtedly be continued, however, if they meet the needs for home care of those afflicted.

Trustees of the fund are Mrs. D. B. Devore, a sister of the late Mrs. Stewart, L. W. Holbrook, and the Union Trust Company.

The Section on General Practice sponsored the program before the District Medical Society on March 8. Dr. John E. Smith delivered an address on "Aids to Diagnosis in Coronary Disease." Dr. Smith is on the staff of the Civil Aeronautics Administration as Medical Officer of Aviation Safety. Dr. R. Lee Spire, Chairman of the Section, addressed the Society the same evening on "The Responsibility of the General Practitioner in Cancer."

On February 28, Dr. Edward J. Stieglitz addressed members of the Section on "The Challenge of Longevity."

The March 22 meeting of the District Medical Society was sponsored by the **Section on Pediatrics.** Dr. George B. Logan, Consultant to the Section on Pediatrics of the Mayo Clinic, was the guest speaker; his topic was "Certain Aspects of Liver Disease Peculiar to Children."

The Section on Neurology and Psychiatry and the Washington Psychiatric Society held a joint meeting in the Medical Society's building, March 2. The topic for discussion was "The Legal Responsibilities of Physicians and Public Officials in Commitment Procedures." The panel of discussants included Major Robert J. Barrett, Superintendent of the Metropolitan Police Department; Captain Rhoda Milliken, also of the District Police Department; Dr. Winfred Overholser, Superintendent of St. Elizabeths Hospital; and Attorneys Ralph Quinter, T. Gillespie Walsh and H. Mason Welch.

The Executive Board of the Medical Society of the District of Columbia, at its regular meeting, February 27, voted to change the title of the Committee on Emergency Medical Service to Committee on Emergency Medical Service for the Washington Metropolitan Area.

The Board voted its approval of the immunization campaign proposed by the Subcommittee on Child Welfare and recommended by the Committee on Public Health.

The Board also approved the pilot study of the Home Care Demonstration Project to be conducted at Gallinger Municipal Hospital which had been presented to the Committee on Public Health by District Health Officer Daniel L. Seckinger and Dr. Sidney Shindell, Director of the Project.

Dr. Karl C. Corley, General Chairman for the 21st ANNUAL SCIENTIFIC ASSEMBLY, submitted a list of members to serve as subcommittee chairmen for the ASSEMBLY. The Board confirmed the appointments, which are as follows:

Program: Dr. Thomas McP. Brown
Scientific Exhibit: Dr. William J. Tobin
Public Health Exhibit: Dr. Henry D. Ecker
Radio, Television and Motion Pictures: Dr. Robert S. Smith
Attendance: Dr. Joseph J. Wallace
Special Exhibit: Dr. Maurice H. Friedman
Social Affairs: Dr. Richard H. Todd

Dr. Dorothy Holmes was the speaker at the **Women's Medical Society** meeting, March 7, in the Doctors Hospital Solarium. Her subject was "New Developments in Ophthalmology."

The Alexandria Medical Society held a Clinical Assembly at the Ficklin School Auditorium in Alexandria, Va., April 16, which was attended by a number of District Medical Society members. Among those who appeared on the program were Dr. Theodore E. Woodward and Dr. Alexander Schaffer, both of Baltimore, and Dr. J. Edward Berk, Assistant Professor of Medicine of Temple University. The papers presented by them were "Clinical Application of the Newer Antibiotics and Their Limitations" (Woodward), "Pediatric Emergencies" (Schaffer) and "Treatment of Duodenal Ulcers" (Berk).

For its meeting, March 17, the **George Washington University Medical Society** sponsored a lecture on "Marriage Counseling Today and Tomorrow" by Dr. Abraham Stone, President of the American Association of Marriage Counselors. Dr. Stone is also Medical Director of the Marriage Counsel Patient Center of the Community Church of New York.

The Osler Society met at the home of Dr. Crenshaw D. Briggs, March 20. The host delivered a paper on "Lymphosarcoma"; a case report on "Abdominal Tuberculosis" was presented by Dr. James E. Wissler.

Dr. Ronald A. Cox has been appointed Professor of Ophthalmology and Executive Officer of the Department of Ophthalmology of **George Washington University School of Medicine,** succeeding Dr. Ernest A. W. Sheppard, who resigned his administrative duties in order to devote more time to research. Dr. Cox also succeeds Dr. Sheppard as Chief of the Department of Ophthalmology of the University Hospital.

Dr. Cox, a graduate of George Washington University School of Medicine, was appointed to the faculty of the University in 1935 and has held the title of Assistant Clinical Professor of Ophthalmology and Associate University physician. He is a diplomate of the American Board of Ophthalmology, and a Fellow of the American College of Surgeons, the American Academy of Ophthalmology and the American Medical Association.

Dr. Sheppard became Head of the Department of Ophthalmology at George Washington University upon the death of Dr. William Thornwall Davis in 1944. He will continue to teach in the School of Medicine as Clinical Professor of Ophthalmology.

Dr. Thomas S. Lee, Professor of Cardiology at Georgetown University School of Medicine, was made Honorary President for life of the **Washington Heart Association,** at the meeting held in the District Medical Society's auditorium on February 8. Dr. J. Ross Veal, President of the Heart Association, who was presiding at the meeting, presented Dr. Lee with a scroll which confirmed his appointment as Honorary President "in recognition of his interest in founding the Association twenty-five years ago and his constant service to it."

Following the presentation Dr. William D. Stroud, Professor of Cardiology of the Graduate School of Medicine, University of Pennsylvania, addressed the assembly on "Coronary Artery Disease."

Dr. Victor R. Alfaro spent six weeks in South America during January and February. After attending the Second Pan American Congress of Otolaryngology and Bronchoesaphology in Montevideo, Uruguay and Mar del Plata, Argentina, he enjoyed a rest and vacation. At the Congress he presented a paper on "Serous Otitis Media" in collaboration with Dr. Irvin Hantman. Dr. Alfaro is Professor of Otolaryngology at Georgetown University School of Medicine and Dr. Hantman, Associate Professor in the same specialty. Dr. Alfaro reported on the proceedings of the Congress before the Section on Otolaryngology, March 21.

Mr. Willard C. Smith, Executive Director of **Hospital Service Agency,** announces that upon the resignation of Dr. John A. Reed, December 14, 1949, as President of HSA, **Dr. Thistle McKee,** First Vice President, succeeded him in office. Dr. McKee is a well known pediatrician in Alexandria, Va. She is President of the Alexandria Community Health Center and Chief of the Medical Staff of Alexandria Hospital. Her husband is Martin Toscan Bennett, consulting engineer. They reside at 27 Woodmont Road, Alexandria.

The leading editorial in this issue of the MEDICAL ANNALS has been contributed by Dr. McKee.

Dr. Lewis K. Sweet will resign as Chief Medical Officer in Pediatrics at **Gallinger Municipal Hospital,** July 2, in order to accept a research position with the National Institutes of Health in Bethesda, Md. He will be Director of Clinical Research at the Institute of Microbiology.

Dr. Sweet has held the Gallinger position since 1938. He graduated from Harvard Medical School in 1929, served three years at Children's Hospital in Boston, and then spent two years in China. He joined the staff of the United States Children's Bureau in 1936 and two years later took the Gallinger position. Dr. Sweet is recognized as an authority on poliomyelitis.

Dr. John Phillip McGovern, Chief Resident Physician at Children's Hospital, was chosen by the John and Mary R. Markle Foundation of New York to conduct a $25,000 research project at George Washington University School of Medicine. The grant was one of twenty awarded to medical schools throughout the country, providing $5,000 a year for five years to support "outstanding young scientists who have chosen academic medicine in preference to practice or research in industrial laboratories." Dr. McGovern will join the staff of the School of Medicine on July 1, when he plans to teach and continue his research work, which is centered in the field of academic pediatrics, particularly the neonatal period.

Dr. McGovern is the son of Dr. Francis X. McGovern, well known Washington surgeon, and Mrs. McGovern.

Dr. Charles Stanley White has been elected a member of the Board of Trustees of MEDICAL SERVICE OF THE DISTRICT OF COLUMBIA. He takes the place of Dr. W. Warren Sager, who recently resigned from the Board. **Dr. William P. Herbst,** a member of the Board since MEDICAL SERVICE was established in 1948, succeeds to the position of Vice President, which position was also held by Dr. Sager.

Dr. Harold J. Jeghers and Dr. Brian B. Blades, of Washington, **and Dr. David M. Rioch,** of Bethesda, Md., civilian consultant physicians at **Walter Reed General Hospital,** were honored, February 11, by receiving letters of commendation from Major General R. W. Bliss, Surgeon General of the Army. The recognition occurred on the fourth anniversary of the Army Medical Department's graduate professional training program. Similar letters were addressed to 24 physicians at Army hospitals elsewhere.

Dr. Donald Stubbs presented two papers before the Atlanta (Georgia) Graduate Medical Assembly, which was held in that city on February 6, 7 and 8. The titles of the papers were "Respiratory and Circulatory Collapse" and "Control of Pain." At a dinner meeting of anesthetists from Atlanta and vicinity as well as from surrounding states, on Monday evening, February 6, he spoke on "Relativity in Anesthesia."

Dr. John B. Ross presented a movie on "Exsanguination Transfusion in Erythroblastosis" before the D. C. Society of Medical Technologists, February 21. The meeting was held in the Solarium at Doctors Hospital. Dr. Ross also discussed the importance of the Coombs Test in the clinical laboratory.

Dr. Frank H. Towner, who was recalled to active duty with the U. S. Navy in 1942, was retired on February 28. He was previously retired in 1931. During his World War II service, Dr. Towner held the rank of Lieutenant Commander and was stationed in the office of the D. C. Recruiting Service.

Dr. Albert Cannon, an intern at **George Washington University Hospital,** was chosen by the surgical attending staff as the "man of the year." The honoree so selected receives the staff's annual award, which is a two weeks' visit to a clinic of his choice. Dr. Cannon's choice was the Mayo Clinic in Rochester, Minn. Dr. Cannon, a graduate of the Medical College of South Carolina at Charleston, began his internship at George Washington University Hospital in July 1949; he plans to reënter the Navy for his residency.

Dr. Elmer W. Fugitt writes that he has returned to active duty in the Army and is on the medical staff of the 60th Station Hospital at Fort Dix, New Jersey. Dr. Fugitt holds the commission of Lieutenant Colonel.

Mr. Arthur B. Solon resigned as Superintendent of **Surburban Hospital** in Bethesda, Md., and has been succeeded by **Miss Amelia C. Manry,** Assistant Administrator at Doctors Hospital. Mr. Solon had served as Superintendent of Suburban Hospital since 1945. Miss Manry was lay Assistant Administrator at St. Peter's Hospital, New Brunswick, N. J., for 12 years before she affiliated with Doctors Hospital in 1944.

Mr. Robert D. Southwick, Deputy Superintendent of **Gallinger Municipal Hospital,** has resigned to take a position as Administrator of a hospital in Concord, New Hampshire. **Mr. Paul Keen,** former Business Manager of Glenn Dale Sanitarium, will replace him at Gallinger.

MEMBERSHIP

The following applications for membership will be voted on at the meeting of the Executive Board, May 22, 1950:

For Active Membership

John R. Conley, Georgetown University—1947
Louis A. Craig, Jr., Johns Hopkins University—1943
William F. Simpson, Jr., Georgetown University—1945

For Associate Membership

Ralston H. Adams, George Washington University—1943
George P. George, Georgetown University—1943

For Resident-Intern Membership

Ira Weiss Pearlman, Georgetown University—1947

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interests of our readers and as space permits. Physicians are urged to submit reviews of additional current books which, in their opinion, merit comment.

The 1949 Year Book of Medicine (July, 1948–May, 1949), edited by Paul B. Beeson, M.D.; J. Burns Amberson, M.D.; George R. Minot, M.D., S.D., F.R.C.P. (Edinburgh and London); William B. Castle, M.D., S.M. (Hon.) Yale, M.D. (Hon.) Utrecht; Tinsley R. Harrison, M.D.; and George B. Eusterman, M.D. Pp. 831. Chicago: Year Book Publishers, 1949.

Pollen Slide Studies. Grafton Tyler Brown, M.D., F.A.C.P., Instructor in Clinical Medicine, Georgetown University School of Medicine; Consultant on Allergy, United States Public Health Service; Head, Division on Allergy, Doctors Hospital, Washington, D. C., with a Foreword by Wallace M. Yater, M.D., M.S. (in Medicine), F.A.C.P., Director, Yater Clinic; Civilian Consultant, Army Institute of Pathology and Walter Reed General Hospital; formerly Professor of Medicine, Georgetown University School of Medicine, Washington, D. C. Price, $6.00. Pp. 112. Springfield, Ill.: Thomas, 1949.

Collected Reprints of the Department of Ophthalmology of the West China Union University, College of Medicine and Dentistry, 1938 to 1945.

Collected Reprints of the Grantees of the National Foundation for Infantile Paralysis for 1948, Volume IX. New York: National Foundation for Infantile Paralysis, 120 Broadway, 1950.

For the New Mother. Mildred V. Hardcastle, R.N., illustrated by Shirley Tattersfield. Price, $2.00. Pp. 163. Philadelphia: Winston, 1950.

Brain and Behaviour—Induction as a Fundamental Mechanism of Neuro-Psychic Activity. An experimental and clinical study with consideration of educational mental-hygienic and general sociological implications. N. E. Ischlondsky, M.D. Price, $7.00. Pp. 182, with 46 illustrations. St. Louis: Mosby, 1949.

Physician's Desk Reference to Pharmaceutical Specialties and Biologicals, edited by J. Morgan Jones. Pp. 632. Rutherford, N. J.: Medical Economics, Inc., 1950.

Sexual Deviations. Louis S. London, M.D., Diplomate, American Board of Psychiatry and Neurology; Member, American Psychiatric Association; Fellow of the American Medical Association and other medical societies, and Frank S. Caprio, M.D., Member, American Psychiatric Association, Society for the Advancement of Psychotherapy, American Medical Association and other medical societies, with a Foreword by Nolan D. C. Lewis, M.D., Professor of Psychiatry, College of Physicians and Surgeons, Columbia University; Director, New York State Psychiatric Institute and Hospital; Editor, *The Psychoanalytic Review*. Price, $10.00. Pp. 702. Washington: Linacre Press, 1950.

A Century of Medicine in Jacksonville and Duval County (Florida). Webster Merritt, M.D. Price, $3.50. Pp. 201, illustrated. Gainesville, Fla.: University of Florida Press, 1949.

Mitchell-Nelson Textbook of Pediatrics, 5th ed., edited by Waldo E. Nelson, M.D., Professor of Pediatrics, Temple University School of Medicine; Medical Director of St. Christopher's Hospital for Children; with the collaboration of Sixty-three Contributors. Price, $12.50. Pp. 1658, with 425 illustrations (19 in color). Philadelphia: Saunders, 1950.

Cardiovascular Disease: Fundamentals, Differential Diagnosis, Prognosis and Treatment. Louis H. Sigler, M.D., F.A.C.P., Attending Cardiologist and Chief of Cardiac Clinic, Coney Island Hospital; Consulting Cardiologist, Rockaway Beach Hospital; Consulting Cardiologist, Menorah Home and Hospital for the Aged. Price, $10.00. Pp. 551, with 149 figures. New York: Grune & Stratton, 1949.

Primer of Allergy. Warren T. Vaughan, M.S., M.D., Richmond, Va., with illustrations by John P. Tillery, M.D. Third Edition, revised by J. Harvey Black, M.D., Dallas, Texas. Price, $3.50. Pp. 175, illustrated. St. Louis: Mosby, 1950.

Detection and Prevention of Early Cancer—L'Esperance

(Continued from page 190)

nition of 1 per cent of cancer in apparently normal individuals is important but of far less future value than is the training of physicians in methods best suited to avoid the full development of cancer. It certainly is our responsibility not only to treat cancer adequately, but to be able to recognize the incipient neoplasm at a time when a cure is possible, and better still to spread knowledge that will prevent the high incidence of this disease.

Even after the research scientists have discovered the cause of cancer, prevention and early diagnosis through periodic health examinations of normal individuals will remain the cornerstone on which the control of cancer must rest.

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Aureomycin for Psittacosis—Davis and Hawkins

(Continued from page 205)

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AML's Index-Catalogue

(Continued from page 227)

The question of the requirements of medical science for bibliographic control of its literature has been under study for some time by a committee of the Surgeon General composed of men prominent in the fields of medicine and library sciences. This committee has made several recommendations which will be followed as the change-over to the new system is effected.

The position of the Library as a center of historical research in the medical sciences will not be affected. The Library's traditional interest in the historical side of the medical sciences will continue. The rich and vast resources of the Library as a center of historical research will continue to be at the disposal of medical scholars everywhere.

MEDICAL ANNALS
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ATTITUDES AND PERSPECTIVES OF THE MODERN DOCTOR*

RAYMOND B. ALLEN, M.D., F.A.C.P.
President, University of Washington; Director, Medical Services Division, Office of Secretary, United States Department of Defense

MR. DEAN, Mr. President, Distinguished Guests, Trustees, Faculty Members, New Faculty Members, Students, New Students especially: I feel very much at home in this gathering, if for no other reason and there are many—than because I come from the University of Washington, I am in Washington, D. C., and I am in George Washington University.

I presume that, as a college president, I might make a theme out of that and talk for the next half hour, but I shall not. I shall merely remark in passing that that man whose life bears more study than some of us medical students have given it was a colossus, not because he was the most articulate man of his day (for he was not, by his own admission), but because he felt in his bones the greatness of what was to be America and he had the greatness to encourage, not discourage, that battle of titans—those titans who walked across the borders of public life of that day, Jefferson and Hamilton, men whose philosophies were antithetical completely.

You know the outcome of that battle of the ages; perhaps you do not know that the tribute of one great man, Jefferson, to another is indicated by the fact that at Monticello you will see a bust of his great adversary, Hamilton.

Why do I mention this on an occasion such as this? For a very good reason.

Those men lived and fought (and really fought) for principles, high principles, in a day which made possible such an assembly as this, made it possible for education to grow in this country, as it has grown, and remain free, and made certain that our government would be, as it is today, our government, yours and mine, not a government telling George Washington University and the University of Washington what they may teach and what they may not teach.

This is a principle which I hope all of us recognize as basic to the integrity and the future of everything you and I stand for, not merely as doctors and doctors-to-be, important as this is. There can be no free medicine, as was demonstrated during the War in Nazi Germany and is being demonstrated today in Russia, and—for the same reasons—there can be no free research or free inquiry unless all of education be free. We all, as citizens, recognize our primary responsibility in this direction.

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* Delivered at the Opening Assembly of the 126th Session of the George Washington University School of Medicine, Washington, D. C., September 19, 1949.

Some of you may not be aware—I think I am accurate here—that there were six physicians who signed the proposed constitution of the Constitutional Assembly in those early days. There was at least one physician who signed the Declaration of Independence.

I have looked into the histories of these men, medically. They were fine doctors in their communities. They were more than this; they were fine citizens. You recognize in their day, perhaps more than in our day, the importance of medicine to the welfare of our Nation.

This, perhaps, is my theme. I am always interested, when I start off talking, in what my theme will be, but I am sure this is it. It is that the attitudes, the perspectives of the doctor of the twentieth century must be always, if we are to carry on this great tradition of which I speak, shaped by his function as a citizen. We must see to it that we do look upon our society, our life, and mankind as responsibilities parallel to our responsibility to the individual patient, important as that is.

In order that there be no mistake about this, let me say that there can be no greater parallel responsibility than this, that we know what we are doing when we deal with human life.

How has it come about that we know a great deal more today than when I was in school? For example, I started in the University of Minnesota in 1920. I received my M.D. degree in 1928. This was twenty-one years ago. I say to you that there has been as much advance in those twenty years in our field and fields basic to it as in the previous 100 years. Yet since the turn of the century, I think it is fair to say, the advance in medical science has been greater than has been the gain in skill with which we apply this science to the welfare of the individual patient. And it is this skill which is the art of medicine, for the practice of medicine is not a science; it is the art by which we bring science to the welfare, to the benefit, to the aid of suffering, ill humanity, and by which we endeavor to keep people well through preventive medicine and public health.

But what has happened? I think it is worth emphasizing that what has happened is the development in our field, as in all other branches of science (technology, industry, and economic life), of the tools of science and the scientific method. These tools were suddenly sharpened to the point where, as applied to various segments of the unknown frontier, that knowledge came tumbling in, and, through the media of our medical schools, the findings of the basic scientists (chemists, physicists, biologists) were very rapidly transported over into our field. We improved upon this knowledge to a very high degree in terms of its applications. We even, as we do today, supported what may be regarded as fundamental inquiries into the nature of the life process.

So we are interested, as medicine has developed in our time, both in fundamental science and its application. We are the bridge, as it were, between the developments and changes on the natural science front, and especially and increasingly on the social science front, and the practical labors for the welfare of humanity.

I mention and emphasize this because it is important, as we look upon the practice of medicine today and the organization of medical service, to realize that we would not have the skill, the knowledge, or the ability to provide this service, were it not that specialization, as the President has so well said, has developed so rapidly.

But there is a point here which I am sure many of you recognize. As these special fields and the clinical fields have gone forward and worked to such good effect, accumulating such knowledge and skills, there is a rather rapid coalescence of these fields. I have a notion that, if I took a few weeks off and sat down with a really first-rate teacher of chemistry and physics, I would find that there is a developing unification—that is a good word—developing unity—let's use "unity" —of approach of these people.

Where is the line between physics and chemistry today? Ask the nuclear physicists, and they will tell you there is no line.

And where is the line between biochemistry, chemistry, and the study of the life process, biology? There is no line.

Just for convenience only we accept these fields in order to be able to administer such a fine university college of medicine as this. Dean Walter Bloedorn has to have somebody to head up this segment or that; if he did not, he would have to create some segment so large that direction would be lost. But let's not forget the fact that this administrative arrangement increasingly is becoming merely a measure of convenience.

The hope lies in that our young doctors, as they come out now, will have this broader concept of the scientific base of medicine.

There is another phase of the development of scientific knowledge to which I would like to call your attention for another minute. This has to do with what is called the social sciences. These are fields dealing with the human being again, just as we do, but as behavior problems and as the products of interactions in the social process and the society. In this connection we think of psychology, sociology, economics, anthropology, particularly cultural anthropology, and history. These fields are in their infancies as compared with the natural science fields in which we are so securely based, but let me remind you that Hippocrates, that wise man of medicine whom we revere in the oath we take when we enter practice, talked exactly the same language I am using.

But it was not until our generation, curiously enough, that it was recognized that the interaction of the individual with his environment, his social, his industrial, his domestic, and his business environment, was a vital consideration in relation to his inner well-being and, indeed, his health. Because it has been demonstrated in recent years that emotional disturbances result from maladjustment to the environmental situation, whatever it is (the home or work), providing complication in or additions to those occupational diseases which are toxicologic. I am speaking now of the reaction of the individual, his mind and his emotions, to a certain situation, a certain kind of boss, let's say, who does not understand and use him properly. The individual fights that. He fights unwittingly, perhaps, or knowingly. He fights that authority which is imposed on him in his job. All of these complex factors are now recognized as part of the medical problem.

It is important for us as doctors to know more about the tools of these sciences, infant sciences, in many ways, but with tools that are becoming increasingly sharp. We must know more about the work of these specialists who study the problems of behavior. Through psychology and sociology and cultural anthropology this whole area is under intense scrutiny, and many of their materials, curiously enough, are not available in a form which we can use in our medical schools. There are projects afoot whereby some of these materials will be made available, put together in such a form as to be of more use to us.

Then comes, of course, economics. I trust that many of you new students have had modern courses in economics. This is a vitally important field. The medical profession is sometimes reproached with the fact that it is not sufficiently interested, apparently, in the problem of the economics of medical care, but that, of course, is not true. We doctors are very much interested in it. But do we make our maximum contribution toward the study and solution of the problems of the economics of medical care? I think not. Why? Because we are not trained for it. But we should train ourselves for it.

These problems have to be faced and, where there are problems in society in general, if the professions, voluntary organizations, do not solve these problems, or do not make the serious attempt to solve them, there will be a social vacuum. And what moves into such a vacuum? Always government; government will move into any social vacuum.

I am not saying that government should not move into a vacuum. I do not believe in social vacuums. What I do believe in is the recognition of, the study of, and the solution of problems of society as well as those of the individual by voluntary effort.

I would like to suggest seriously that, in the study of medicine, we interest ourselves in and concern ourselves more about these problems of the transmissibility, if you will, of medical services to the ultimate consumer.

As long as there are, as I am told, upward to one third of the people of this Nation who are not receiving adequate medical attention, you and I have an obligation and a responsibility to be concerned about this and, through our associations, our organizations, and our medical schools, to advance solutions for it as, indeed, we are advancing them now, more vigorously than ever, throughout our Nation in various states and through various programs. This problem can be licked.

We should not attempt radical solutions which will create greater social problems than the problems presently existing. But it is up to us to assist in the solutions and I suggest that the doctor has not measured up fully, so far, to his responsibility to join other people and agencies in the community in approaching realistically these problems and offering our society rational solutions. There is hope, however, that this defect of ours will be corrected.

Now a word about what I presume some of you think I should have been talking about all this time—military medicine.

I salute my colleagues in uniform who are here today and the many others they represent. I have had the unusual experience this summer of going to school to the Department of Defense, and I was just saying to Mr. Johnson the other day that I thought he really ought to charge tuition for college presidents who come down here to work in his part of the Federal Government. I have learned so much.

I can say to you confidently that our military medical services have never been at a higher level of morale and efficiency. The training programs I have seen in many places, internships and residencies, are among the best in the Nation. It can be said with utmost confidence that our military medical services are organizations of which the entire medical profession should be proud.

Our office set up at the Secretary of Defense level is there to coördinate, to supervise and to control the policy, not to enter into the field of operations. We have fine operating organizations under the Surgeons General, and these are to remain intact. We intend, under Admiral Boone's able leadership, through the Joint Plans and Actions Division of my office, to approach, one at a time, the major problems which underlie a joint tri-service program of activity.

There are a great number of these programs, which already had been launched with General Hawley as Chairman, I believe, and Admiral Boone as Executive Secretary. We have taken the work of this committee and its many, many subcommittees and are going ahead with the implementation of the many aspects of the total effort.

We also are interested, in another division of the office, in civilian health and military interrelations, and especially in problems of the draft on the medical manpower of the Nation in any emergency. We coöperate closely with Dr. Scheele and his fine organization, and with other governmental bureaus which make a draft on medical manpower and resources generally.

There are other phases which I could go into, but all of this suggests another word to medical students. I do urge them to defer their decisions on the directions of their training until they have some facts on which to base decisions.

As a dean at Illinois and elsewhere, I always had a feeling of dismay when an underclassman came to see me and said that he knew already that he was going to be a psychiatrist or that he was going to be a surgeon. I do not know how he could possibly know that.

I do hope, until you get some kind of perspective of medicine—and here I talk in general about perspective; we will go on developing our perspectives throughout life—until you have a sounder base, that you will defer your decision.

One of the things I want you to look at, above all, is the great tradition, the great contributions in research and service, which have been provided in our governmental services, the military, the United States Public Health Service, and other services. This is a dramatic and stirring chapter in the history of American medicine, about which books have been and should be written, but the public has little appreciation of it. And what astonishes me most is that the profession itself has too little appreciation of it.

I do urge upon you students to look at the opportunities for advancement, the opportunities for getting into administrative medicine, a very important aspect of medicine generally in our society now, including the military, for the simple reason that we are dealing with larger and larger problems, and we must have people cognizant of these basic professional problems, who can deal with them intelligently and administratively.

Just one story (and I will be through) about our recent inspections. They were not really that; they were visitations of various medical installations and commands throughout the numerous theatres, made in some 35,000 miles of travel.

I think they thought I was the itinerant or peripatetic director around the Pentagon, but I told the Secretary I thought I would like to get out and see what the problems were in the field, and to talk to the commanders.

This was richly rewarding, not merely visiting the doctors, important as they were, but also talking to the field commanders and noting the appreciation of the problems on the part of these men and their common belief that the doctor, the chief surgeon, was one of the most important men in the command, the right-hand man whose work had a direct bearing on morale and many, many things.

There are numerous things I might say, impressions, and so on. Certainly, in Europe there is tremendous moral, physical, and spiritual reconstruction, which makes me very hopeful for the future.

On the way back we stopped at the field at Lagens do Pico, Azores, where there is a stopping-off point for our flights, our air evacuation, and so on. The Air Force has a fine hospital unit there. Physically, it is just an old shack, really. We have a three-year lease at the Azores, which can be canceled in a matter of ninety days' notice, and renewable one year at a time. So naturally, we do not make much of an investment there.

But what we did find there was a command of 1,000 people, with about 1,000 dependents.

A young doctor, a captain of the Air Force on duty about two years, was the chief medical officer. He had had an internship and a year of residency training. He had some reason, perhaps, to be a little bitter about the fact that he had not gotten all the training he wanted. But did he let that get him down? I should say not. I want to tell you that young man gave us one of the finest briefings on his mission, how he saw it, and what he was doing about it, that we heard anywhere. Here was a young man who looked at his job when he was assigned there, saw some problems, and went to work to solve them.

Did he solve those problems? He certainly did. He invented a lot of things around the place. He wrote a fine brochure for the dependents, to emphasize to them the problems which the command had with just two or three doctors at the most, and how their coöperation with the command, with the hospital and with the dispensary would help in spreading evenly the scarce medical-care service.

That is what I found in many, many places, people who looked at problems locally and region-

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THE CLINICAL APPLICATION OF PHYSICAL MEDICINE IN SOME OLDER PATIENTS*

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THE purpose of this paper is to present to you some very practical applications of physical medicine which we have found of value, particularly in the steadily increasing older age group.

HYPERTROPHIC ARTHRITIS

I will first consider the familiar subject of degenerative joint disease, otherwise spoken of as hypertrophic arthritis or osteoarthritis. The pathologic changes in many cases appear to have no known etiologic factor other than the aging process, but frequently the lesions are influenced by previous trauma, abnormal joint mechanics, or earlier inflammatory joint disease. Articular cartilage has very limited reparative power so that we cannot expect anatomic cure. Therapy, therefore, is directed mainly toward relief of symptoms and elimination when possible of those factors leading to further joint damage.

The commonest symptom that brings the patient to the doctor is pain. This is related to secondary changes, since there is no sensory nerve supply of the articular cartilage itself. Presumably it is due to the inflammatory reactions in fibrous tissue or bursae, elevation of the periosteum with bony overgrowth, and the associated secondary spasm of muscles. In the case of Heberden's nodes the pain associated with the proliferative process is often self-limited, disappearing when calcification takes place, but in most instances it is worth while to prescribe some method of treatment to bring symptomatic relief.

A second very common complaint of the patient with degenerative joint disease is that of weakness of the joint involved so that it cannot be trusted for normal function. This is particularly true of the weight-bearing joints, and physical examination usually reveals a certain degree of muscular atrophy and weakness.

A further disability is that related to loss of range of joint motion which is closely related to the duration of the disease process, the degree of destruction of joint cartilage, and the secondary proliferative changes of the bones.

In considering treatment by means of physical medicine one seeks primarily to relieve the first two symptoms, namely, those of pain and weakness, and only minor changes can be expected in improvement of the range of joint motion. Before considering the details of treatment it is important to examine the patient carefully to detect any correctible mechanical disalignments which may often be influenced favorably by appliances such as foot plates, corsets, belts and occasionally braces. The role of obesity should not be overlooked, since it places undue strain upon weight-bearing joints and reduction diets are frequently indicated. The trauma on weight-bearing joints may also be relieved by the use of canes or crutches as well as reduced activity together with the physical measures to be described. One should not forget the value of analgesic drugs, particularly salicylates, because they enhance the effect of physical therapy and frequently make possible more rapid return of function.

Before discussing the details of the physical medicine prescription I would like to dwell a moment upon the physiologic principles involved in the use of physical agents. Heat in one form or another is prescribed almost routinely. Various methods of application are available. For example, heating may be by conduction as with the application of hot, moist fomentations, an electric pad or hot water bottle, or immersion in hot water or the melted paraffin wax and oil bath. Radiant heating is also popular as in the use of luminous or nonluminous infra-red generators. Conversive heating, that is, changing electric energy to heat in the tissues, is achieved by application of short-wave diathermy or, more recently, by micro-wave diathermy. Whatever the method of heating utilized, the primary desired effect is an increased temperature of the part. In the absence of vascular disease the increased temperature results in an increased blood flow in the same area which includes arterioles, capillaries, veins and lymphatics. Although one does not usually assume deficient circulation with degenerative joint disease, it is possible that the increased blood flow associated with application of heat may aid in the resolution of the inflammatory processes so often present. In any event relief of pain is commonly experienced following the use of heat. The mechanism of this pain-relieving effect may be due to diminution of muscle spasm, alteration in pain threshold through the changed temperature gradient, or some other unknown mechanism. The application of heat seems to be based on symptomatic grounds with no specific indication for prolonged increases in temperature nor for any one type of heating over another. The experienced physiatrist may with good reason select one form of heat in preference to another in treating a particular region of the body in a particular patient because of the greater efficiency. In general, however, inexpensive methods which can be used in the home are quite adequate, provided that complete and detailed instructions are given concerning the method of application, the duration of the treatment, and the frequency of repetition, together with advice as to probable effects and dangers to be watched for.

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When a skilled physical therapy technician is available, massage is often prescribed following heat. This massage is sedative in nature and directed toward relief of muscle spasm, avoiding the areas directly over the joints. If a trained therapist is not available, it is probably best to omit this portion of the prescription.

The third and most important part of the treatment concerns therapeutic exercise. The aims of exercises in degenerative joint disease are two-fold: first, to increase joint motion when limited, and second, to improve muscle power. The technical details of therapeutic exercise are of utmost importance, and I will accordingly take them up in relation to certain most commonly involved areas. Much of the success of treatment is dependent upon careful supervision of active exercises both for stretching of tight structures and for strengthening the musculature. Little can be expected to be accomplished by short cuts such as issuing the patient a list of typewritten directions unless preceded by an adequate number of supervised exercise periods.

Knees. The knees, being weight-bearing joints, represent one of the most frequent localizations of degenerative joint disease, and unfortunately it may be quite disabling. Patients are subject to acute periods of severe pain at which time bed rest for short periods may be necessary. In all cases it is generally advisable to avoid all unnecessary weight-bearing. Pain-relieving drugs should be used as necessary, together with local applications of heat. Usually the most suitable method of heating is that which may be applied at home, particularly during the acute phase when a trip to the office or hospital would increase the strain on the joints. As soon as the acute symptoms of the inflammatory process have subsided, the most definitive portion of the treatment with physical medicine may be started. This consists in specific exercises to increase the power of the muscle as rapidly as possible, at the same time avoiding any unnecessary trauma to the joint. A study of the complaints of these patients will reveal that they have a feeling of insecurity and weakness, particularly on stair-climbing, and they frequently state that the knee gives way. If one measures the strength of the quadriceps muscle with quantitative tests, it becomes apparent that there is indeed a true weakness present in the majority of patients. We have found that testing the resistance manually is very misleading to the average observer, the best estimate of strength being obtained by means of functional testing such as lifting weights or by means of some type of mechanical dynemeter.

The physiology laboratory has given us reason to expect that the most effective method of increasing strength of muscle is to make it contract against a near-maximum load. Our experience in the clinical laboratory has shown that this is true and has given us the basis for using so-called progressive resistance exercises to strengthen the quadriceps of these patients ith degenerative arthritis of the knees. This method has long been used by weight lifters to develop extreme degrees of hypertrophy and power. These same methods with suitable modifications have been utilized by DeLorme and others to improve effectively the strength of even very weak muscles. To do this safely in the treatment of patients it has been necessary to devise apparatus so that the patient may be properly and safely positioned and the weight load accurately adjusted for the individual need. Details of these technics have been described in several publications.[1-6]

Progressive resistance exercises for the quadriceps muscle are quite simple, provided there is sufficient power to extend the knee against gravity, which is usually the case in degenerative joint disease. A convenient method is to use an aluminum boot which is strapped to the foot containing a crossbar upon which weights of graded poundage from $\frac{5}{8}$ to 10 may be easily slipped on and fastened. The patient exercises in the sitting position with a little support under the distal portion of the thigh and brings the knee to full extension with the prescribed weight attached to the foot. After a short preliminary period of warming up, weights are added until the amount is determined which the patient is able to extend fully 10 times and no more. This should represent a maximum exertion and is known commonly as the 10-repetition maximum and forms the basis for the exercise régime. The average patient is instructed to do 3 sets of exercises daily with loads which are 50, 75, and 100 per cent of this 10-repetition maximum. The general rule is to exercise 10 times at each weight load, totaling 30 exercises each day 5 days a week. One day each week is the test day when the 10-repetition maximum is determined. As this maximum resistance increases, the three sets of exercise resistances for the following week are accordingly increased. But the total number of exercises each day does not increase, on an average remaining constant at 30. Occasionally this may be reduced to 8, but is not increased, as the principle of this method of developing muscle strength is based on heavy resistance with few repetitions in contradistinction to many repetitions with low resistance, which is perhaps a more familiar exercise routine. It has been found that the average patient is able to increase his 10-repetition maximum by at least $1\frac{1}{4}$ to $2\frac{1}{2}$ pounds each week and may continue at this speed of progress until nearly normal strength is obtained. In some cases a month of treatment may be sufficient. In others, 3 to 6 months are required. This can perhaps best be shown by an illustrative case history.

Joseph B., aged 65, was referred to the Physical Medicine Department from the Orthopedic Outpatient Clinic because of low back pain and pain in the left knee which had been present for 6 years and recently had become more severe. Just prior to the beginning of physical medicine treatment the low back pain had subsided, but the pain in the left knee continued so that he was unable to walk up steps except one at a time because of pain and weakness. Physical examination revealed no measurable atrophy of the quadriceps, but there was definite weakness and some tenderness over the medial collateral ligament; however, the joint showed good stability. On testing his 10-repetition maximum it was found to be

12½ pounds. Progressive resistance exercises were prescribed and supervised 3 times a week. During the first week he had an increase in pain, but by the end of the week it had subsided. During the course of 1 month the patient gained 15 pounds in strength with a 10-repetition maximum of 27½ pounds. At the same time there was relief of the previous symptoms. Treatment was discontinued. On follow-up visits he still was able to carry on normal activities without pain.

Before leaving the subject of treatment of knees with weak extensor mechanism, I would like to describe the method of exercising employed for those patients whose strength does not permit them to extend the leg against gravity with any additional resistance. For these patients the exercise position is changed to one of prone lying so that extension is aided by gravity. Graded resistance is then added by attaching it through an overhead pulley until the strength increases to a point sufficient to allow exercise in the sitting position. We also prescribe for home programs a similar arrangement which can be simply set up by attaching a pulley in a door frame with use of a home weight pan. Knee flexion can also be done in the same position with an overhead pulley attachment.

Hips. Degenerative arthritis of the hips including malum coxae senilis presents more difficult problems of treatment. In many cases it is necessary to limit activity and diminish trauma on the joint by use of canes and crutches and at the same time use local heat and analgesic drugs for relief of pain. Non-weight-bearing exercises may be prescribed to maintain a range of motion as complete as possible. Progressive resistance exercises have been tried but usually with indifferent results, since pain frequently limits their effectiveness. Many of these patients are more satisfactorily treated by means of vitallium mold arthroplasty. An essential part of the after-care is the development of adequate hip musculature to make use of the newly constructed hip joint. The details of this method have been described previously.[5] Recently developed equipment for home use now makes it possible to perform the same exercises by means of detachable door-frame pulleys, employing the same principles of counterbalance when necessary.

Cervical spine. Degenerative lesions of the cervical spine may result in pain radiating to the occipital region and to one or both of the shoulders. Physical examination reveals some limitation of neck motion, particularly of lateral flexion and rotation, which motions on testing cause increase of symptoms. There is often at the same time an habitual posture of increased backward flexion together with dorsal kyphosis, presumably due in part to faulty posture. For these patients neck traction by means of a Sayre head sling with an overhead pulley has been found of value. In our experience the degree of tension applied varies considerably with different patients. It averages between 15 and 20 pounds for a period of 15 to 20 minutes at a time in the sitting position. The degree of tension may be regulated by means of a spring balance placed in the traction rope, the other end of which is attached firmly to the wall. Another method which is particularly good for an apprehensive patient is to allow the traction rope to be quite free so that the patient may move his head without increasing tension. With this method one simply attaches the desired weights to the other end of the rope. Very frequently better relaxation is obtained if radiant heat is applied to the neck during the period of traction. Muscle spasm is further relieved by gentle sedative massage to the neck and shoulder girdle. The patient is also instructed in active stretching exercises for the neck, particularly extension with chin retraction and gentle rotary movements. The treatment very often has to be continued for a minimum of 6 weeks, and because of this the traction apparatus may be supplied to the patient with proper instructions for home use. In this case the traction may be applied 2 or 3 times a day at home for 15-minute periods.

Lumbar spine. X-ray changes with marked hypertrophic arthritis in the lumbar spine are quite common and may not produce symptoms. In those patients who have pain one very often finds at the same time associated obesity and poor postural habits, particularly with increased lordosis and some limitation of motion. When acute pain is present, rest on a firm mattress and local application of heat are indicated, also sedative massage, followed by gentle recumbent exercises including lumbar flexion in the back-lying and sitting positions passively under the patient's active control. When the patient is relatively pain-free, testing the musculature usually reveals flabby abdominal muscles with poor power and also weakness in those of the back. Exercises are then prescribed to increase the strength of these muscles very gradually, the elderly patients not tolerating very much resistance. We have found it very helpful to examine the strength of the quadriceps in patients with complaints of back pain. because weakness of these muscles does not allow the patient to pick things up from the floor by means of knee-bending and the back is habitually strained unnecessarily. Very often strengthening the quadriceps muscles alone may give almost dramatic results in preventing recurrent bouts of low back pain.

Hands (*Heberden's nodes*). It is well known that Heberden's nodes may be present without symptoms even when the deformities are quite marked. It is also well established that pain may disappear spontaneously over the course of several months. Whenever pain is a limiting factor, however, the use of warm applications, such as hot soaks and particularly the use of a paraffin bath with a temperature near 130°F., may give considerable relief of pain.

RHEUMATOID ARTHRITIS

I will not attempt to cover the subject of the use of physical medicine in the treatment of patients with rheumatoid arthritis, since it is probably familiar to all of you. I would like to mention, however, our experience with the use of progressive resistance exercise in patients with this disease. In the first place, we consider it contraindicated for joints during a phase of acute activity of the inflammatory process. It must also be used with caution in those patients who show no signs of acute activity but still have slight effusion present. We have occasionally observed that giving exercises of this type may result in an increase of the effusion and pain. This has not seemed to result in any permanent damage, however, and, in fact, gives us some information as to the degree of activity present in the joint, which is difficult to tell simply by physical examination. We do feel that recumbent resistance exercises are probably valuable, particularly for the knees, in patients who have been in bed for some time and who are to be made ambulatory in the near future. It seems advisable to develop as much musculature as possible for the affected joints before allowing weight-bearing, and resistance exercises seem to be an efficient way of increasing muscle strength in a minimum length of time. However, these exercises should be given with careful follow-up at least once a week when the patient is on a home program, rather than once a month as may be done in the case of degenerative joint disease. In patients with chronic or "burned out" rheumatoid arthritis and residual deformities, progressive resistance exercises have been found to be very helpful in the rehabilitation program. We have observed instances of patients completely homebound and requiring care for all activities who may after persistent efforts develop enough muscle strength, even though the range of motion is limited, to be taught ambulation and become independent in all ordinary activities of life.

CHRONIC BACK STRAIN

I mention the subject of backache with some hesitancy, because I know that the problem of differential diagnosis alone is worthy of lengthy discussion by groups of experts. Because of the importance of treatment of patients with backache in everyday practice, I would like to tell you of some of our successful experiences in one particular group of patients whose back pain is thought to be due to a mechanically unstable back, particularly in the region of the lumbosacral junction. To begin with I shall exclude all patients with known protrusion of an intervertebral disc and those with significant signs of root irritation when disc pathology might be suspected with a fair degree of certainty. I do not exclude patients who have occasional pain radiating to one or both legs, because I personally do not believe this necessarily indicates a disc lesion. With these various exclusions I have found that there are many patients who simply have recurrent backaches. Many of these are women who have rather poor habits of back mechanics, who constantly rely upon the use of some corset or brace, and who on examination are found to have poor strength of abdominal and back musculature. As you probably have suspected, the method of treatment again employs the principle of progressive resistance exercise. The two fundamental exercises for this group of patients are simple, namely, forward flexion to strengthen the abdominal musculature and backward extension to improve the erector spinae groups. Since we have found that best results are obtained after about 3 months of such exercises, the program is so modified that the exercises may be done at home and we have many cooperative patients who will take the time to set up the necessary apparatus and to do the daily exercises. The following case history will give you a typical example:

Miss Carolyn L., aged 43, was referred by an orthopedic surgeon with a story of recurrent attacks of back pain of at least 4 years' duration. The pain was more in the right lumbosacral region, and occasionally radiated into the right gluteal area and down into the leg. She had never gone to bed because of pain but had restricted many of her desired activities and had worn a corset for many months. In spite of this, she was never completely free of discomfort over a 24-hour period and was very willing to accept treatment with some hope of more permanent relief.

Examination revealed quite good mobility of the back without noteworthy X-ray changes but only fair musculature. Her 10-repetition maximum on trunk extension was found to be 20 pounds and for trunk flexion 15 pounds, from the half-sitting position. After several periods of instruction she was started on a home program which she continued with monthly checks for 3 months. Following this period of exercise she increased her resistance load 100 per cent and was greatly pleased with her ability to pursue a very active life without her previous periods of fatigue and discomfort. It is true that she occasionally had periods of low backache so that, although we cannot say a cure was effected, the results were gratifying.

There are numerous cases similar to this in which about a 3 months' period of exercise was necessary to produce a level of trunk musculature of this degree, namely, about 100 per cent greater resistance loads than at the beginning of treatment. We are still exploring this method of exercise in treatment of selected cases of back pain of traumatic origin but cannot as yet draw conclusions.

As many of the patients we have discussed are in the older age group, attention must be paid to the presence of cardiovascular disease, particularly disease of the coronary vessels, high blood pressure, and extensive arteriosclerosis. Progressive resistance exercises of the type which may cause increased intra-abdominal pressure are contraindicated for these patients.

Facial Paralysis

There are, of course, many other common conditions worthy of discussion, such as the treatment of the patient with bursitis of the shoulder, hemiplegia, common fractures, sprains, and a variety of degenerative neurologic conditions. I have chosen, however, to omit these and instead to tell you something about a recent study of a condition which is fairly common in a large clinic but still may not be seen too frequently in general practice. This condition is idiopathic facial paralysis or Bell's palsy. Dr. Park and I[7] have recently reviewed over 500 cases of facial paralysis, the majority of whom I have personally seen during the past 10 years. This type of paralysis is often very alarming to the patient, who suspects a cerebral vascular accident, brain tumor, or other serious disease. It is accordingly of value to rule out a central lesion by physical examination or, if necessary, roentgenograms, and then give the patient a reasonable prognosis as to recovery. I will accordingly outline what we have found to be the natural course of the disease.

First of all, we have found that facial paralysis occurs in all ages between 5 and 85, with the majority between 25 and 50. It occurs in both sexes with the same degree of frequency and was also observed in about the same prevalence in each month of the year in New England, indicating that the factor of exposure to cold really has little etiologic significance in the average case. In fact, our only lead as to etiology comes in the cerebral fluid findings in 24 cases, 10 of whom had an increased cell count, protein content, or both, suggesting a possible virus infection.

The patients were found to fall into 3 groups according to the time of first return of function. In the first group this was observed between 10 days and a month and was associated with a completely normal end result. In the second group return of function was delayed between 4 and 6 weeks to 2 months, with a good end result in the majority of cases but residual defects in some. The third group had no return of function until the second or third month or occasionally later, and in all of these there was always some detectable loss of function as a residual defect.

We have found that testing for electric excitability between 7 and 10 days after the onset of paralysis enabled us to make a quite accurate prognosis as to the time of initial return of function and the degree of residual defect to be expected. If normal excitability was maintained, an early return of function with a normal end result was assured. If some fibers showed diminished response to faradic current and altered galvanic responses, a delay in return of function could be anticipated and the possibility of some residual defect considered. If a complete reaction of degeneration occurred with loss of faradic response and slow hyperirritable galvanic response indicating degeneration of the peripheral axon, the patient could be warned that a delay of 2 to 3 months was to be expected before initial voluntary movement could be obtained. In these cases, as previously mentioned, a normal functioning face was never observed. At rest the face might look quite symmetrical, but with movement the eye and mouth were usually seen to contract together as a mass action with some diminution of the palpebral fissure and limitation of full excursion of the mouth. Asymmetry was noted in smiling and talking very frequently, and occasionally involuntary tic-like contractions were observed. Fortunately, permanent paralysis was observed in less than 4 per cent of the patients.

Treatment for idiopathic facial paralysis is largely symptomatic. Pain is common during the first days and may be alleviated by local application of heat. During the paralytic period gentle massage and exercise by means of electric stimulation is valuable in maintaining good muscle tone but was found to have no appreciable effect on the speed of recovery. The choice of electric current, of course, is dependent upon the excitability of the muscles and would have to be altered if degenerative changes occurred from rapid frequency, short duration impulses, such as the faradic current, to repetitive galvanic stimulation, such as long duration square waves with slow frequency. With beginning return of active function, muscle reëducation, particularly with mirror exercises to develop symmetry of motion, is very helpful. In those patients with prolonged paralysis protection of the cornea is important and even suture of the lids may be advisable. Although we were unable to make any claims for dramatic effects of physical therapy in patients with idiopathic facial paralysis, it is certainly of considerable importance psychologically in many patients and it is also reassuring to the physician to be able to make a prognosis of such accuracy by means of simple electric tests.

(*Continued on page 294*)

THE IRRITABLE COLON AND ITS ROLE IN THE DIFFERENTIAL DIAGNOSIS OF ABDOMINAL DISEASE

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IN VIEW of the frequency with which the internist is confronted by patients with a multiplicity of abdominal operative scars and a persistence of their original complaints, it seems worth while to consider in some detail the role of the irritable colon in the production of abdominal symptoms.

That the irritable colon frequently plays such a role is testified to in the reports of many workers in the field of gastroenterology. Collins[1] states, "The irritable colon syndrome is the most common cause and the most neglected entity pertaining to abdominal distress." Brown[2] has the following to say, "It is my conviction that failure to recognize functional bowel disorders constitutes the single greatest source of error in abdominal diagnosis. Reference need only be made to the much abused diagnosis of chronic appendicitis. At least 1 out of 4 cases of markedly irritable colon observed at the Presbyterian Hospital in Chicago will have had an appendectomy at some prior time." What is the reason for this hiatus in our diagnostic acumen? Stengel[3] said in 1933, and it is also true at this time, "Internal medicine still labors too greatly under the domination of the school of pathologic anatomy. The physician of today is still obsessed with the feeling that the discovery of an anatomic lesion and the naming of a disease is the end of his diagnostic labors." Bockus[4] states, "It is possible that many full-time teachers may not appreciate the frequent occurrence of the functional disorders of the colon in general practice." Bockus and Willard[5] reviewed almost a thousand consecutive records of office patients, and the diagnosis of a colonic neurosis was made in 18 per cent. Bockus himself states that this figure is conservative in view of the careful selection of cases.

If then the irritable colon occurs so frequently in medical practice and is so often a diagnostic problem, let us proceed to discuss its characteristics and then to attempt to point out ways in which to differentiate it from other abdominal conditions.

DEFINITION

The term irritable colon is used to define a colonic dysfunction which has as its etiology a musculoneural imbalance which may be aggravated by factors both physical and emotional but which has no demonstrable organic lesions as its cause. Kantor[6] prefers the term unstable colon, since, as he says, the same bowel may show at various times, or in various locations at the same time, delay or hypermotility, atony or spasm. For this reason the old term spastic colon has to some extent fallen by the wayside as naming only one phase of a disordered function. In this discussion so-called mucous colitis is included as a variation of the irritable colon, since it appears to me that presence or absence of mucus in bowel excreta depends only upon the degree and severity of autonomic imbalance.

ETIOLOGY

Consideration of the etiology of the irritable colon is most interesting. It is generally assumed that an autonomic imbalance exists wherein the normal nerve supply to the organ seems to follow more closely the pattern of hypervagotonia in so far as the alimentary tract is concerned. Thus one often observes in the same patient symptoms referable to a hyperirritability of the left colon and behavior resembling that of duodenal ulcer or hyperacidity of the stomach. Also when present in these people, cardiac abnormalities are frequently those seen in overstimulation of the parasympathetics.

That the irritable colon has a close tie-in with emotional instability has been noted by many observers. Bockus[4] says the colonic neuroses (irritable colon) represent perhaps the truest example of a civilization disorder. They occur rarely among members of those races that have failed to accept civilization. For instance, the pure Negro in his native habitat does not often suffer from this ailment. In this connection it is probably quite significant that in various studies the average age of patients being treated for irritable colon is about 39 years and that incidence of this syndrome after 50 years of age is negligible. Thus it is seen that the occurrence of symptoms coincides with that decade or decades in life wherein the struggle for economic, mental, moral and philosophic security is at its greatest. After 50, when the "die is cast," much of the uncertainty of life has dwindled.

As to the psychiatric mechanisms involved in the diarrhea accompanying the irritable colon and other colitides, Franz Alexander[7] says, "The psychoanalytic study of patients suffering from spastic and mucous colitis shows a typical conflict about their strong demanding and receptive wishes. They wish to compensate for these dependent wishes by activity, substituting attacks of diarrhea for real activity and accomplishment. Another unconscious emotional factor connected with diarrhea is the desire to give compensation for all those things which the patient wants to take away or receive. At the same time, however, he has a violent reluctance to exert himself, to engage in systematic strenuous work and to fulfill those obligations to which emotionally he feels compelled. Often the patient becomes dependent on others but feels that he should do something to give compensation for all that he receives; but instead of real accomplishment he satisfies his conscience with this infantile form of gift, that is to say, the intestinal content."

Be this as it may, I have often wondered to what extent susceptible individuals are conditioned toward an irritable colon syndrome from infancy. Anyone who has ever raised children will have watched them in infancy making their first real acquaintance with fear and anxiety in straining at a constipated stool with its attendant physical pain. The redness of the infant's face, the dilated pupils reflecting terror, and the profuse sweating of his entire body attest to the degree of fright. Why then might it not happen in a particularly sensitive individual that this early association of anxiety and bowel dysfunction be permanently conditioned? Later when the individual is sorely challenged by some economic, personal or environmental problem, his colon reflexly makes strenuous propulsive efforts resulting in either diarrhea or constipation, depending upon whether circular or longitudinal muscle fibers in the colon gain the upper hand in addition to the relative degree of colonic secretion.

It must be mentioned for the sake of completeness that symptoms of colonic irritability are also dependent upon overuse of cathartics and enemas as well as to the ingestion of diets heavy in roughage. These facts are well known to physicians and need no repetition. That overexposure to cold and undue physical fatigue are contributory factors in this syndrome is a matter of common observation.

Symptomatology

The most frequent symptom in the irritable colon syndrome is pain or at least discomfort. As one might expect, the discomfort may occur anywhere along the course of the colon, which in view of the variations of colonic morphology means discomfort anywhere in the abdomen. In this connection Bockus and Willard[8] in a review of 50 cases of irritable colon found the following distribution of abdominal discomfort: migratory in 20 cases, epigastric in 11 cases, upper abdominal in 4 cases, and lower abdominal in 15 cases. In 7 cases the pain was severe enough to completely incapacitate the individual. The sensation may be described as a dull, nagging, toothache type of pain, or in the more severe attacks, it assumes a crampy-colicky character, particularly if it is due to intestinal hyperperistalsis. The duration of the attack varies from several days to several weeks dependent upon which of the etiologic factors are at play. The bloated feeling of which so many complain may be the sole discomfort or be in addition to aching or cramp-like pain. This bloating is usually quickly relieved by the taking of an enema, by expulsion of gas, or even by a full bowel movement. Borborygmus is concomitant and is always bothersome.

Bowel irregularity is usually present though not always and is not necessary for diagnosis. Alternating constipation and diarrhea is considered characteristic. However, either constipation or diarrhea may exist. A segment of firm stool followed by a portion of semi-liquid feces is quite frequent. Great variation in the caliber of the stools reflects the constantly changing diameter of the bowel lumen. Many patients can predict an attack by observing a definite narrowing of the fecal bolus.

An annoying symptom-complex which may bring the patient to the physician is so-called "biliousness." In addition to bloating there may be associated anorexia, dizziness, dull headache, marked fatigue, coating of the tongue, nausea, flushing of the skin, occasional vomiting, and insomnia. These complaints led early investigators to the then popular theory of autointoxication which presupposed the absorption from the bowel of toxic substances derived from fecal putrefaction. Alvarez[9] goes into detail to eliminate one by one all of the known secondary products of fecal putrefaction as possible offenders, and cites the experiments of various physiologists who were able to produce this symptom-complex in its entirety by the stuffing of the rectum with cotton. Stretching of the rectal ampulla by feces apparently sets up a chain of autonomic reflexes which result in every symptom mentioned. Alvarez, in reminding us of the rapidity with which relief is obtained by these patients after a bowel movement, condemns the autointoxication theory by using the analogy of the drunk who never sobers up immediately when his flask is taken away.

Fever may occasionally accompany an attack of irritable colon. It is difficult to see the mechanism involved unless it be due to dehydration in prolonged bouts of diarrhea. Bockus[4] cites the case of a nurse whom he saw after she had been submitted to an appendectomy, exploration of the pelvic organs, cholecystectomy and an abdominal exploration, these as a result of recurring episodes of abdominal pain, fever and leukocytosis. Careful subsequent observation justified an unequivocal diagnosis of severe mucous colitis.

X-RAY FINDINGS

X-ray findings with a barium enema indicate an organ of obvious instability. The picture is extremely variable in the same individual depending upon the amount of barium used, whether alteratives such as tannic acid are used, upon the relative excitement of the patient, etc. However, in general the barium is seen to literally fly around the colon reaching the ileocecal valve with regurgitation into the ileum within a few seconds. Often a complete absence of haustral markings associated with narrowing of the colon produces an appearance suggestive of ulcerative colitis. The variation in appearance of haustrations and the changes in the degree of distensibility on films taken at various times is a feature in many cases according to Bockus. The so-called prediverticulosis pattern of the colon as shown on barium enema is characterized by haustral bowel margins revealing a fine, shallow, irregularly arranged, saw-tooth appearance. It is considered to be diagnostic of irritable colon. Zonal and regional spasms are frequently seen in the unstable colon.

The progress meal affords an idea of the irritability of the gastrointestinal tract as a whole. In patients with irritable colon in whom there is postprandial discomfort, barium may be seen in the left colon within several hours.

Finally it must be admitted that in a certain number of cases of irritable colon the bowel appears normal on X-ray examination.

Sigmoidoscopy

Sigmoidoscopy is very helpful in establishing a diagnosis. It is with difficulty that the scope is passed due to the hugging of the instrument by the sigmoid. Often one has to wait for a considerable matter of minutes before slipping the scope past the rectal sphincter due to its greatly increased tone. Upon examination the mucosa is seen to be dry, somewhat glazed and, according to some authorities, shows a loss of distinctiveness of the "chicken wire" arrangement of colonic blood vessels. Mucus when present is profuse and obvious.

Diagnosis

Diagnosis is made on the basis of a long history of recurrent episodes of abdominal pain, colicky or dull in character, varying in location during different attacks but most apt to occur in the left lower quadrant. Inability to prove an organic basis despite careful X-ray and proctosigmoidoscopic examinations is characteristic, and the patient in whom the symptoms occur may on careful questioning reveal the fact that economic and personal crises or food indiscretions invariably produce either diarrhea or constipation or an alternation of both.

Differential Diagnosis

Those conditions most frequently encountered in the differential diagnosis of irritable colon may be classified into two large groups depending upon the systems involved, namely, gastrointestinal and urogenital.

AUTONOMIC REFLEX CONSIDERATIONS

That these systems are closely related reflexly and therefore symptomatically is well explained by the renal-digestive reflex described by Smith and Orkin.[10] The kidney receives its nerve fibers from the renal plexus. Most of the filaments in this plexus are supplied by the celiac ganglion but a few are contributed by the aortic and adrenal ganglia and the lesser splanchnic nerve. The greater splanchnic nerve communicates with the renal plexus via the celiac ganglion, and both splanchnic nerves carry fibers to the kidneys by the same celiac route from the 7 lower thoracic and the first lumbar segments. The visceral nerves of the kidney originating in the tenth, eleventh and twelfth thoracic and the first and second lumbar segments have direct reflex connections with these. In this way we get cutaneous hyperesthesia and also reflexes referred to the visceral branches supplying the gallbladder and intestinal tract. Impulses reaching the cord from the kidney and perirenal tissues may pass upward via the tractus solitarius to the vagal nucleus, there connecting with the parasympathetic (excitomotor) fibers which descend to the stomach and upper abdomen. Symptoms of pain, nausea, vomiting, heartburn, belching and epigastric fullness may result. By similar reflex connection through the spinal cord cells (intermediolateral column cells) the sympathetic (inhibitomotor) or parasympathetic fibers supplying the colon may be stimulated, producing either decreased or increased motility. Hence abdominal pain, cramps, constipation, diarrhea or paralytic ileus might occur. It is because of this reflex mechanism that Smith and Orkin believe that clinically quiescent upper urinary tract lesions often give rise to symptoms suggestive of digestive tract disease.

It is understandable why an abnormality of the genital system may affect the function of the intestinal tract and perhaps vice versa when one finds that the same motor fibers which supply almost the entire gastrointestinal tract also find their way to the internal sphincter of the bladder and anus, ureter, urethra, uterus, tube, prostate, vas deferens, spleen and blood vessels of the abdominal viscera. The inhibitory fibers supplying the lower esophagus, cardia, wall of stomach, small intestine and gallbladder also supply the urinary bladder, uterus, ureter and vas deferens.

GASTROINTESTINAL CONDITIONS

Peptic ulcer. This condition is sometimes difficult to differentiate from the irritable colon, and the irritable colon is at times combined with peptic ulcer as a manifestation of generalized gastrointestinal irritability. An irritable colon frequently accounts for the "hangover" symptoms of bloating, indigestion and nausea often ascribed to an ulcer which has in reality responded to therapy. However, in contradistinction to the rhythmicity of ulcer pain, the discomfort or pain due to irritable colon is episodic and continuous when present. X-ray examination should readily differentiate the two conditions. Likewise, whereas milk is the sheet anchor of ulcer therapy, it frequently aggravates symptoms of colonic instability. In fact, food of any kind by initiating the gastrocolic reflex is apt to make colonic symptoms worse.

Gastrogenous diarrhea. Here the differential diagnosis is easily made by use of the stomach tube, but this condition resulting from achlorhydria or hypochlorhydria must be kept in mind as resembling the diarrheal manifestations of the irritable colon. Administration of dilute hydrochloric acid is the therapeutic test.

Gastric malignant neoplasms. Episodic nausea and excessive flatulence, particularly of the upper abdomen, with discomfort under the left ribs and lack of appetite may, when produced by gastric carcinoma, closely resemble colonic symptoms, but cancer should be suspected when the patient is in an older age group. The diagnosis should be made easily by X-ray examination, gastroscopy, analysis of gastric contents for blood and tumor cells, and the finding of blood in the stool.

Cholecystitis. As mentioned previously, a fair percentage of cases of irritable colon produce right upper quadrant pain, which, together with vague indigestion and so-called biliousness, cause them to be falsely diagnosed as cholecystitis. Operation is performed for removal of the gallbladder, and the symptoms continue unchanged. Thus the irritable colon accounts for a definite percentage of the cases of so-called postcholecystectomy syndrome. Fever, leukocytosis, jaundice, clay-colored stools, upper abdominal rigidity and the demonstration of gallbladder calculi are evidence in favor of gallbladder infection.

Chronic relapsing pancreatitis. In this condition where starch and lipoid splitting ferments vary in quantity from time to time, symptoms of bloating from carbohydrate indigestion and diarrhea caused by the presence of a high fat content of the stools may readily mimic bouts of irritable colon. Vague epigastric discomfort is also compatible with either condition.

Diagnosis of this type of pancreatic disease if considered is not too difficult. Elevated blood sugar, excessive fat and starch on microscopic and chemical analysis of the stool, elevated serum lipase if present, and therapeutic response to adequate doses of pancreatin will be helpful. On the other hand, the medical régime for irritable colon will not influence symptoms due to pancreatitis.

Small intestinal dysfunction. Any condition causing partial obstruction or hypermotility of the small bowel may produce cramp-like abdominal pain and or diarrhea not unlike the unstable colon. Such conditions would include the so-called motor dysfunction states of the small bowel, tumors, abdominal adhesions encroaching upon the intestine, intestinal parasites, etc. Careful X-ray examination including if necessary a small bowel enema and search of the stool for parasites should readily demonstrate small bowel involvement. The important thing here is to remember the small intestine. The low incidence of organic lesions in this part of the gut often lulls us into a false sense of security. Then too, Emery[11] has stressed the fact that small intestinal hypermotility may overwhelm the colon with irritating digestive juices and roughage to the degree that the colonic equilibrium is disturbed.

Appendicitis. Of all the abdominal conditions with which the irritable colon is confused symptomatically, the erroneous diagnosis of appendicitis results in the greatest number of needless operations. That at times the differential diagnosis is very difficult is admitted and there is no gainsaying the fact that in such cases it is better to remove a benign appendix than run the risk of a ruptured appendix and its attendant complications. Nevertheless, it is contended here that with more careful examination of patients with suspected appendicitis a definite percentage might be saved the inconvenience and expense of a needless operation. Thus Ryle[12] reported that 36 per cent of 50 patients with spastic colon had been subjected to appendectomy. Kantor[6] analyzed 654 case records of patients with an unstable colon and found a history of previous appendectomy in 22 per cent of them. This compared with an average of 17 per cent operated in 3,000 unselected cases.

What findings then may help in making this differential diagnosis? Bockus[4] says that in uncomplicated colonospasm, pain confined to the lower right quadrant is rarely associated with muscle guarding, fever or leukocytosis. In his opinion, the presence of the latter triad of findings justifies the removal of the appendix.

The diagnostic tip-off is often obtained with the history of recurrent attacks of right lower quadrant pain lasting longer than the usual attack of appendicitis and occurring in response to emotional crises. Such a history in the absence of fever, leukocytosis and muscle guarding warrants the trial of a medical régime for irritable colon.

Adhesions and pericecal bands from previous attacks of appendicitis may cause recurrent episodes resembling irritable colon. However, unless X-ray findings bear out these conditions, it is well to treat questionable symptoms on the basis of an irritable colon.

Diverticulitis of the colon. This condition occurring as it does most frequently in the descending colon may closely imitate an attack of colonospasm by producing in milder episodes vague discomfort, constipation, diarrhea or alternating constipation and diarrhea and moderate tenderness to palpation over the involved portion of the colon. One must rely on X-ray examination for the differential diagnosis. Also in diverticulitis the pain is usually more severe and occurs in an older age group than does colonic neurosis. It seldom occurs in patients under 45 years of age. Muscle guarding in the involved area clearly points toward diverticulitis.

Ulcerative colitis. Here the X-ray findings readily give us the answer in a condition in which symptoms of diarrhea, vague abdominal discomfort, and bloating often in a neurasthenic patient may originally usher in a mild attack of ulcerative colitis. Mucosal changes in the bowel are the rule with ulcerative colitis and are never present in uncomplicated irritable colon. Proctosigmoidoscopy is likewise very helpful in the differentiation.

Carcinoma of the colon. Last but not least of the gastrointestinal conditions resembling irritable colon is colonic cancer. Diarrhea is one of the most common presenting symptoms, often alternating with constipation. The mechanism for this is well known. Firm fecal material backs up behind the point of partial obstruction caused by the tumor, and in order to effect evacuation the colon must liquefy the feces with resultant diarrhea. Progressively severe left lower quadrant pain in patients over 50 years of age bespeaks carcinoma of the colon or diverticulitis. Pain in colonic cancer is not usually episodic; it is progressive. X-ray examination in conjunction with sigmoidoscopy is of course the means of diagnosis.

UROGENITAL CONDITIONS

Renal colic. As previously mentioned, the reflex tie-up of the gastrointestinal and urinary systems is very close. Patients with primary urological problems may have reflex gastrointestinal symptoms. I recently saw a woman 55 years of age whose chief complaint was the sudden onset of upper left quadrant pain associated with persistent obstipation and the feeling of an ill-defined spasticity around the splenic flexure of the colon. The diagnostic impression was diverticulitis or possibly irritable colon, but the films of the barium enema showed in addition to a normal colon a small calculus in the left ureter near the pelvic brim. Usually, however, the reference of pain in urinary pathology is toward the groin and genitals unlike colonospasm. Urologic X-ray films should settle the great majority of cases.

Pelvic disorders. Several pelvic disorders contribute their share toward confusing the gynecologist and the gastroenterologist in their respective spheres. Ovarian cyst often in close proximity to the colon may produce by means of dense adhesions colonic irritability and discomfort in the region. Barium enema examination, by showing indentation of the colon from pressure by the cyst, may seem to indicate a colonic lesion.

Endometriosis involving the colon is a condition well known but seldom thought of in the search for the cause of constipation, diarrhea or bloody mucus often occurring only at menstrual time.

On rare occasions pelvic inflammatory disease is associated with severe symptoms of colonic disease. Hyperemia and edema of the mucosa and excessive mucus in the colon by sigmoidoscopic examination have been reported in such cases.

The diagnosis of pelvic pathology is usually easy, however, with careful pelvic examination. When there is any doubt, medical management directed toward the irritable colon should be given a trial before considering laparotomy.

SUMMARY

1. Clinical features of the so-called irritable colon are presented as a basis for its differentiation from certain abdominal diseases.

2. The most important of these abdominal diseases are listed and their means of detection discussed. Special consideration is given the several conditions confused with irritable colon which may lead to needless operative procedures.

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TRAUMATIC BRAIN ABSCESS

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PURULENT abscess of the brain is usually due to intracranial extension of inflammation in the middle ear, paranasal sinuses, or to metastasis from pulmonary suppuration. Only rarely does this pathologic condition appear as a complication of trauma (head injury).[1] Numerous reports of cerebral or cerebellar abscess subsequent to war wounds of the head have appeared in the recent literature.[2, 3, 4, 5] The 2 cases which follow are thought to be of interest because both are examples of brain abscess resultant from injuries in civilian life and represent the results of neglect of presumably uncomplicated scalp lacerations.

REPORT OF CASES

Case 1. F. H., a colored man in the middle 40's, was admitted to Gallinger Municipal Hospital on May 15, 1948, aphasic and with a left hemiplegia. Four days before he had been struck on the head with a brick and was unconscious briefly. Since bleeding from a laceration of the right parietal scalp soon stopped, the patient apparently thought nothing more of the injury. During the ensuing 3 days there had been gradual development of hemiplegia on the left, with onset in the face, and of aphasia. The latter was most remarkable, since the patient was right-handed.

X-ray films of the skull disclosed a comminuted fracture of the right parietal bone; the temperature was normal and the leukocyte count (blood) was not elevated.

The patient was operated upon, with a preoperative diagnosis of compound skull fracture and possible epidural hematoma. When bone fragments were removed, pus could be seen oozing from a pin-point opening in the dura. This membrane was incised widely, and the underlying superior parietal gyrus was transected. At this stage there was a gush of purulent material mixed with necrotic brain (about 30 c.c. in all). With suction, lacerated brain was removed from the margins of the abscess tract, in the depths of which ventricular fluid could be seen to be sparkling. The depth of the cavity was 4 cm. The ragged walls of the abscess were suctioned away until normal-appearing brain was present all around. The fistula was then flushed with saline and peroxide, and sulfathiazole crystals instilled. The wound was drained and penicillin injected beneath the scalp. Culture of pus obtained revealed a mixed flora.

The postoperative course was remarkably uneventful. At the time of discharge (2 weeks postoperatively) the patient was still bedfast, owing to hemiplegia, but speech had returned. When checked up 6 months later, he was walking without assistance. The left arm remained almost completely paralyzed, but the speech was considered to be normal.

Case 2. M. J., a 9-year-old colored boy, was admitted to Gallinger Municipal Hospital on September 18, 1949, with signs and symptoms of meningitis. Sixteen days before admission he had been struck on the head with the wheel of a child's wagon, and one of the spokes had been embedded in the scalp. The laceration was treated at another hospital. When it became infected, the patient was hospitalized briefly at the same institution and treated with antibiotics. Suppuration recurred, and the child developed headache and a stiff neck and was admitted to Gallinger.

The spinal fluid contained a high cell count (700 per cu. mm., 70 per cent polymorphonuclear leukocytes), and culture disclosed hemolytic staphylococcus aureus. This organism proved to be sensitive to aureomycin (not to penicillin), which was given by mouth in dosage of 250 mg. every 3 hours. Although meningitic signs receded, and the temperature returned to near-normal, the child was obviously not well and cried constantly.

On September 23, 1949, a hemorrhage was noted in the left retina. Skull films were repeated, and reviewed. X-ray films made on admission had revealed a minute area of rarefaction in the right occipital bone (immediately underlying the laceration of the scalp). Nine days later the area of radiolucency was enlarged. The scalp continued to ooze pus.

Operation was performed on September 30, 1949. A soft-tissue flap was reflected around the old laceration, and a nubbin of granulation tissue could be seen projecting through a small, smooth hole in the bone. Infected osteoid tissue was removed to form a craniectomy defect 5 cm. in diameter. The underlying dura was excised, a small piece of indriven bone plucked from the surface of the cortex, and creamy pus began to flow from the brain. The capsule of a long, chronic, smooth-walled abscess cavity was incised and grasped with forceps. The entirety of the finger-like capsule was removed. It lay parallel to and near the occipital horn of the right lateral ventricle, which was not opened. Gel-foam impregnated with aureomycin was placed in the brain defect, the dura left open, and the wound closed in layers after excision of the infected scalp laceration.

Postoperatively, intravenous aureomycin was continued for 24 hours. The child became tractable and quiet. He was discharged on the 14th day after surgery, and a neurologic check-up 3 months later, including visual field examination, revealed absolutely no impairment. He had had no convulsions, similar to case 1.

DISCUSSION

Brain abscess has become quite uncommon, undoubtedly owing to the vigorous use of sulfonamides and antibiotics in the treatment of cranial and thoracic suppuration. The condition must still be thought of, however, especially in traumatic cases when evidence of infected local injury to the scalp and skull is accompanied by signs of neurologic deficit or meningeal irritation. Traumatic brain abscess may make its appearance after intervals of as long as 15 to 20 years.[6]

The method of total excision of the abscess capsule—in the one case ragged and necrotic; in the other, fibrous and well-defined—was employed in the treatment of these cases, as has been advocated recently.[3, 7, 8] Antibiotics were instilled locally and given in large doses parenterally. Since the radical surgical treatment of brain abscess developed parallel with the use of sulfonamides and antibiotics, it is difficult to say which feature of present-day therapy is responsible for the good results obtained.

SUMMARY

Two cases of traumatic brain abscess, associated with scalp laceration and skull fracture, are reported. Following radical excision of the abscess tract or capsule, antibiotics were employed locally and systemically in the treatment. It should be remembered that brain abscess is an uncommon but possible complication of neglected head injury.

Since submission of this article a third patient has been operated upon at Gallinger Municipal Hospital by two of us (J. P. M. and G. S.). W. J., a 39-year-old white man, had sustained a head injury in a brawl on April 9, and the left frontal region was lacerated. The sutured laceration became infected, and stiff neck, high fever, and psychosis developed. Skull films revealed a depressed fracture in the left frontal region. During the 3 days after admission the patient was treated vigorously with antibiotics and sulfadiazine, but the right arm became paretic and the patient aphasic and stuporous. At operation on April 24 about 15 c.c. of pus drained from the left frontal lobe after skull fragments were removed. There was a surrounding subdural abscess. The abscess walls (brain) were sucked out and subdural pus aspirated. Gel-foam impregnated with penicillin was placed in the brain defect and the wound closed tightly without drainage. The paretic arm soon became strong, and the aphasia is clearing slowly. Signs of meningitis abated within 4 days. The wound healed without incident.

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President's Page

THE DOCTOR AND HIS RECREATIONS

Doctors often prescribe a holiday, or a trip, or a change of activity, or a rest, or a hobby. What do they do about it themselves? There are so many different ways of occupying leisure time that the doctor may have difficulty in choosing the particular ones that might benefit him the most, and, like the ass in the fable, starves to death because he cannot make up his mind between equally attractive possibilities. There is also the question of finding the leisure time. At the beginning of practice, the doctor is traditionally supposed to be overburdened with leisure time, while after he has established a flourishing practice he is overburdened the other way.

Changing personal characteristics and changing social customs bring alterations in the doctor's activities. With added years and pounds there is less tendency to indulge in competitive sports, especially on a team basis, and the doctor watches his family grow up and overtake him as he shifts from baseball and swimming to golf and to fishing. Then there is the ceaseless activity of the entertainer to provide spectacles of various sorts so that the doctor can take his recreation sitting down or stretched out in his special radio and television easy chair. He doesn't even have to move from his seat in order to scan the world. Perhaps this is a good thing, perhaps not. The human being, and the doctor in particular, seems to be able to adapt himself to life under extraordinarily different conditions. The individual person can always dig in his garden if he wants to, or read a book, or sort his stamp collection, or drive across the country. The key to the riddle is the wanting to. If he feels the need for recreation he has an abundance of outlets.

There are subtle distinctions between distractions, amusements, relaxations and recreations. The doctor requires an occasional change in the direction of his interests, a temporary setting aside of the bedside manner, a shift from one approach and one goal to a different one, to many different ones. Sometimes it requires hours or even days to divert the current of thought from the insistent problems of the profession to the pleasure of being alive. Half of the ills of mankind are traceable to preoccupation with the self, and most of these can be prevented by cultivation of interests outside of the self. Let the doctor compound his own formula for recreation and change it from time to time in order to meet realistically the practical problems arising in his own maturing make-up.

Walter Freeman

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THE TREATMENT OF CARCINOMA OF THE BREAST

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The fascinating study of cancer presents a baffling problem of treatment in carcinoma of the female breast. Surgery, simple or radical, is not the whole answer in the treatment of this disease. Recurrence of carcinoma in the right breast after 8 years following radical removal of the left breast without glandular involvement tends to show that surgery alone is insufficient. Also, simple mastectomy and postoperative X-ray therapy were insufficient in a case of adenocarcinoma of the left breast without glandular involvement in preventing recurrence and metastasis after 8 years.

Recognition and treatment of breast carcinoma frequently requires the combined experience and study of the clinician, pathologist, roentgenologist and surgeon in order to obtain a so-called cure. Indeed, even then, when everything has been done right, the final result is a recurrence of the disease somewhere else in the body. The first important step in obtaining a reasonable assurance of a cure in the treatment of cancer of the breast is early diagnosis.

Treatment of cancer of the breast starts with the examination and diagnosis of the breast tumor. The position of the patient is important. It is necessary to have the patient assume a sitting-up position in a straightback chair in order to observe the appearance, size, shape and contour of the breasts. One should notice breast asymmetry, the appearance and condition of the skin, nipple and areolae, and the presence or disturbances of smooth contours.

Palpation can be carried out in this position. If preferred, a semi-reclining or full reclining position may be more useful to the examiner. A semi-reclining position restores the pendulous breast to its more normal position, reduces its tension, and promotes easier handling of the part. Early skin retraction is more evident in this position. Gentle use of the fingers and palm of the examiner's hand are a prerequisite in this step of the examination. An erudite touch tells infinitely more than a heavy finger and may save the patient a later metastasis as a lump in the breast is palpated. In examining the breast with the flat surface of the finger or hand against the chest wall, a lump will not change its shape but seems to stand out from surrounding breast tissue.

The examiner must be able to differentiate between true lumps and "lumpy" breast tissue.

Areas first thought to be lumps, when studied in the semi-reclining position, will appear to have scattered, leaving only breast tissue with its irregular "tapioca" surface.

When a lump in the breast has been found to be present actually with skin puckering over its surface, retraction of the nipple, fixation to the chest wall and enlarged glands in the axilla, the diagnosis of carcinoma is easy, because these are cardinal signs of late cancer. But when only a lump in the breast is the solitary sign of breast tumor, the diagnosis is very much more difficult. A hard cyst may feel like a scirrhous carcinoma, but here again the gentle palpation of the examiner's fingers must distinguish between smooth outlines and irregular contours of the mass. The size, shape and location of the mass in the breast must be carefully studied.

Transillumination of the breast by a single cold lamp with a variable intensity of light gives a very helpful insight as to the kind of tumor present. For example, transparency would indicate cystic tumors, and opaqueness tells of a dense newgrowth in the breast tissue.

It seems superfluous to indulge in detailed explanations about inspection and palpation and to say that it is wise to start with the normal breast in order to establish a sense of feel of the tissue to be examined. Systematic examination of all quadrants of the breast, the axillae and the clavicular fossae will aid in determining the final treatment to be used. He who picks up a lump of the breast in his fingers, squeezes it, handles the breast roughly, and leaves it sore should not examine breasts. Rough examination is to be condemned in the strongest terms, and no examiner should ever forget the great importance of performing all breast examinations with the utmost gentleness.

Early diagnosis is essential in determining the ultimate treatment to be given. It is at this point that all the knowledge, experience, training and ingenuity of the examiner are brought forth to challenge this insidious disease of the breast. Upon the diagnosis depends the planning of the best treatment that can be designed to eradicate the disease and to stabilize the physical economy of the patient. The criteria for the kind of treatment will be derived from the examination and diagnosis.

Surgical exploration of breast lumps with frozen section of the excised tumor is essential for complete diagnosis of early carcinoma. This is the next important step in the treatment of breast cancer.

A solitary lesion grossly confined to the breast tissue constitutes the best surgical risk for complete eradication of the malignancy. This is another way of saying that periodic examinations of all diseases referable to the breast should be done early and frequently. At the first appearance of degenerative changes, operative excision should proceed promptly and completely.

If there are positive findings of metastasis within the body by X-ray or other examinations, the case would be considered inoperable. Likewise, if the lymphatic glands in the axillary region are enlarged, hard, discrete or confluent, or if a similar condition is found in the supra- or infraclavicular areas, operative treatment is inadequate.

Operability is anticipated when there is no observable axillary involvement or when only one small gland is palpable in the axilla. Even then, the treachery of carcinoma may be revealed in the widespread involvement of lymph nodes present at the time of operation but not previously identified. Consideration of the type of surgery or combined surgery and X-ray therapy must be assayed. What is the method of choice? Radical mastectomy alone is not the complete answer. Study of statistical data of 10 years ago shows that prognosis depends upon (1) the grade or degree of malignancy and (2) the stage of the disease. When radical mastectomy was performed, under the varied conditions of this classification, such a study shows: no axillary metastasis, 5-year cures, 70 per cent; 1 gland involved, 5-year cures, 20 per cent; and multiple gland involvement, 5-year cures, 3 to 5 per cent.

Statistical reports of 5 years ago show that the results are approximately the same when radical mastectomy and simple mastectomy combined with X-ray therapy are compared. When simple mastectomy followed by X-ray therapy was the method of treatment in 40 cases, the 5-year cure was 44.1 per cent. Radical amputation without X-ray therapy gave a 5-year cure ratio of 43.2 per cent.

Indications at the present moment are these. Ten years ago prognosis depended on (1) grade or degree of malignancy and (2) the stage of the disease. Now a third important consideration must be added to these, the degree of X-ray sensitivity of the carcinoma. The pathologist and roentgenologist are changing the factors in the concepts of treatment of cancer of the breast. With improved X-ray facilities, variations in the radiosensitivity of breast cancer have been effectively combated. Microscopic carcinoma cells are more effectively controlled, cancer secretory activity is inhibited, and metastatic spread is allayed by the application of X-ray therapy. Surgical technic alone cannot deal with these factors of cancer. All breast carcinoma should have combined surgical and X-ray treatment, in the light of the improved knowledge of the more effective use of irradiation. At present some clinics are studying the effectiveness of simple mastectomy and modern irradiation in all breast carcinomata as the principal method of therapy.

Certain important precautions are vital in diminishing the risk of transplanting carcinoma cells in the performance of operations on the breast. Technical procedures cannot be discussed in this discourse, but certain careful steps must be presented. Avoidance of infection necessitates meticulous surgical technic, anesthetic protection, control of hemorrhage, and the prevention of shock. Here is where judgment, experience and technical professional training serve the operator and his associates from a cultural background of thoughtful consideration and action.

Whatever procedure of treatment is used, the actual decision rests upon the foundation of therapeutic precedents in the light of our present knowledge concerning the etiologic factors of carcinomatous degeneration. Suffice it to say, that each carcinoma of the breast requires prompt examination, individual study, early diagnosis, surgical care, irradiation therapy, consideration of the use of androgens and estrogens, and a continuation of an open-minded approach to the problem. In general, when cancer does not involve the axilla and is "localized" to the breast, surgery is a satisfactory procedure. Unfortunately, the diagnosis is not made early enough and the carcinoma has metastasized to the axilla in many instances. In these cases one must look for assistance in some other field than surgery. The methods of employing high voltage irradiation are quite different today from those of 5 years ago and afford great hope in combating the unseen forces of malignant breast growths. Surgery and irradiation offer the best prognosis in the treatment of breast cancer at the present time.

Editorials

AMONG THE HAZARDS OF MODERN CHILD LIFE

It is a far cry from the simple playtime technics of Tom Sawyer and Huckleberry Finn to the complicated modalities of seeking pleasure indulged in by the children and youth of the present mechanistic and electronic age. Exploration on the river in a homemade raft had its hazards, but roller skates, bicycles and electric trains were quite unknown to the younger generation of earlier days, while gasoline-propelled vehicles of various sizes and shapes, from scooters to trailer-trucks, were but a distant dream.

Notwithstanding the tremendous decrease in mortality figures among children from the contagious diseases and other maladies of the young, deaths from accidents have failed to show a similar decline in recent years, but, on the contrary, a marked increase in most localities. Accidents now compose the greatest cause of deaths in childhood from five to fifteen years.

As a schoolboy in the Franklin School, the writer remembers playing soccer on K street, N.W. between 12th and 13th streets, using for a ball an almost invisible marble kicked about the length of the block, with the game unimpeded by traffic save for the occasional passage of a slowly plodding horse whose presence we could afford to ignore. No restrictive signs nor school patrols were needed in those days to block off the square during playtime.

Year by year the licensed motor vehicles increase in number with no saturation point seemingly near. Especially within the District of Columbia there are certain contributing factors toward traffic congestion on our highways, many of which must be corrected.

Day and night 24-hour parking on our streets, forbidden in most cities of the size of Washington, contributes thousands of enticing entrapments between parked cars for children playing on the streets and sidewalks who pursue errant balls into the highways or hide behind parked cars in their games of tag, thus creating a happy hunting-ground for the speeding juggernauts of modern times. Lack of adequate playgrounds, paucity of traffic lights at dangerous intersections, and too liberal speed limits carry their share of responsibility in perils to children of the present day. The alleviation of traffic hazards to the young may be secured through increasing the safety of our highways by a more adequate number of signal lights, each of which must now be authorized by act of Congress in the District appropriations, by better enforcement of speed regulations, by prohibition of 24-hour parking, and by raising the age limit of licensing drivers, which at the present time delves deep into the bobby-sox age group.

School patrols together with school instruction in traffic hazards have already begun to show a favorable response. Mr. Washington I. Cleveland of the A.A.A. has stated in the local press that "during 1948, only 1 child was killed and 3 injured between the school hours of 8 a.m. and 4 p.m. None of the accidents occurred at a school-patrolled intersection."

Inspector Dick Mansfield, while a motorcycle policeman, impressed by the death of a child in 1922, has subsequently devoted an energetic life to the safety of children through "chalk talks," 35-minute lectures under the auspices of the *Evening Star*, and the enrollment of over 100,000 children in an organization called Safety

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia

Carefuliers, who sing in chorus at the conclusion of his talks a ditty beginning: "We're Safety Carefuliers, We Use Our Eyes and Ears!"

Before leaving the subject of accidents, one should ponder upon the occurrence of tetanus among the results of trauma even if of trivial nature. The local press a few weeks ago reported that in Alexandria during the last 4 years 7 cases of tetanus had been reported, of which 4 were fatal. That these victims should incur lockjaw, with the modern measures of prevention easily available, reflects upon the intelligence of a community.

The hazards of modern childhood have been greatly increased by the trend in medicine to utilize powerful alkaloids and active principles of drugs which in years past were compounded as bitter and nauseating tinctures or fluid extracts which were certainly not appealing to the child's sense of taste. For example, atropine has replaced tincture of belladonna, strychnine now prevails as the alkaloid of choice rather than tincture of nux vomica, while both are common ingredients of popular laxative pills such as the well known "A.B. and S." Many such pills and tablets are chocolate-coated; some are flavored with wintergreen or peppermint. Not a few modern therapeutic agents in tablet form (even the humble aspirin) are toxic in large doses but have been made so tasty by pharmaceutical houses that they are even now called "dulcets," a term evidently borrowed from the Spanish word *dulces,* meaning candy.

During an approximate 4-year period, from July 1944 to September 1948, 250 children were admitted to the Children's Hospital because of the ingestion of poisons. This number represents 1.07 per cent of the total number of admissions during that period.

The list of such poisons is too long to enumerate, but it may be said that in relative standing poisoning by kerosene led with a count of 54. In 2 cases it was associated with the presence of DDT in the kerosene as an insecticide. Next in number were those of poisoning by the barbiturates, while represented in the array of poisonous substances were lye, camphor, cleaning fluids, alcohols, phenols, fluorides, rat poison, sulfadiazine, salicylates, and furniture polish. Many of the children poisoned developed serious complications, but because of prompt and efficient treatment there were but 2 deaths, a mortality of 0.8 per cent.

Burns constitute a major cause of morbidity and mortality among children. In ancestral times the implements to create fire were not nearly so available as they are at present. Cigarette smoking was not then a habit indulged in by men, women and even by early teenagers. Cigarette lighters were not carried in the pocket or purse nor did table lighters adorn every coffee table in the living room, all possessing a fascination to the child to create fire. Children are natural pyromaniacs who adore the sight of fire, even starting fires among papers and accumulations of dried leaves in the fall. Their perils are enhanced by the wearing of fluffy skirts by the girls and shaggy cowboy pants (chaps) by the boys, which seem to possess a remarkable tropism for flame.

Infants and small children are all prehensile in their habits as well as being quite research-minded. The sight of any small object which may be grasped in their tiny fingers is often followed by the desire to place it within one of the orifices of their bodies—the nose, the ear canals, more especially the mouth, but also inclusive of the vagina and urethra.

The pernicious habit of some unwary mothers of holding the safety pins in the mouth while changing the diapers quite naturally leads the small human to the deduction that the mouth is the normal habitat of safety pins, open or closed, which not infrequently wander further along the digestive or respiratory tracts.

The infant quite early in life recognizes the mouth with gratification as a receptacle of the bottle nipple and that suction and deglutition are productive of pleasing results. It is reasonable to assume that the infant may regard foreign bodies of every description as attractive and adaptable to his gastroenteric tract, perhaps to his trachea and bronchi. The absence of pockets, especially among girls, leads to the use of the mouth as a receptacle for jacks, beads, coins of the realm, et cetera.

The gustatory pleasure of eating peanuts is well known to children and to elephants at the Zoo, the goober nuts being purchased ostensibly to be fed to the animals but actually always being shared by the donors. The mischance of a peanut going the wrong way into the bronchial tree with resultant acute disorder of the lung structure, possibly abscess and death, is not visualized by the innocent victim of such an incident.

In the foregoing we have spoken of the dangers to life and limb of children, but there is another phase to the picture which is of concern to physicians, namely, the temporary or even permanent injury to the psyche of the child from the effects of modern sources of entertainment often thrust upon children because they are enjoyments in which the parents like to indulge. Witness the telecasts of prize fights or wrestling matches when the camera is pointed by the operator to record the audience. Among the spectators one will invariably see children, even infants of tender age!

Books have been written on the "nervous child," one of the best by the late Dr. John Foote, who was a member of this Society, aptly entitled "Safeguarding Children's Nerves." It is a pity such books are not more widely read by the profession and the laity.

Children's nerves in our modern life are no longer safeguarded but are actually stimulated and titillated through the medium of three main forces, namely, the movies, the radio, and more recently television.

The movies initiated the strains and tensions on the nervous system of the modern child. Motion pictures, delectable to the accompanying parents because of their content of emotional conflicts, of physical violence, and of mystery and murder, are absorbed with equal pleasure by children, while on Saturday holidays, thrillers (called by the producers "westerns") entice the children in long queues to the gaudy entrances of the picture palaces. Silent pictures were bad enough, the sound track aggravated the tensions, while the radio enlarged the radius of evil influence on the emotions of childhood and promoted loss of sleep through late bed hours and the follow-up of residual dreams of violenec and crime.

That time of evening which Longfellow lovingly called "The Children's Hour" is now devoted often to what the cheerful announcer calls programs to teach the evils of lawlessness and that crime does not pay. However, with the rich rewards of hold-ups, expressed in terms of "G's" or "grands" and the wild life of the thugs possessing this loot, the beneficial effects of such educational (sic) movies may be seriously questioned. The pernicious effects may be readily seen by observing on our city lawns a gang of miniature gunmen darting behind bush and hedge and popping toy "gats" at partly concealed bandits indulging in similar tactics.

Concluding the list of instrumentalities capable of wreaking psychic insults upon the brain processes of children, one should name television as the most vicious offender. Archie, the jovial barkeep of Duffey's Tavern, once proposed to set up a television studio in his celebrated eating place. He gave to the world the best definition of this particular entertainment now extant. Quoth Archie, "Television is radio with eye strain!" The term "flickers," first applied to the early movies, may with equal propriety be attached to video. The trying attempts to focus the screen, associated with blinding flashes like the Aurora Borealis, interspersed with brilliant horizontal and vertical nystagmus on the part of the picture, must assuredly produce what Archie describes as affecting the eyes.

The subjects televised are calculated to produce profound tensions in the yet undeveloped child brain. Such include the antics of grotesque dolls whose visages are contorted and distorted in such absurd muscular contractions as to al-

IMPORTANT NOTICE

Identity cards for diabetics and others whose ailments sometimes resemble intoxication were issued by the Washington Metropolitan Police Department on January 20. Major Robert J. Barrett, Superintendent of Police, said the identification cards will be issued on the request of a physician or a member of the ill person's family. Duplicate records of those issued will be kept at police headquarters, precinct stations and hospitals for immediate reference. The Medical Society of the District of Columbia, the Naval Medical Center at Bethesda, and the Army Medical Center will issue cards to physicians and to their patients on request. Cards can also be obtained at police headquarters.

most require imitation by the small tot who is observing them, nor has the writer failed to observe "imitation tics" develop in video child fans.

Capital subjects for the early evening child audiences seem to be the "westerns," with cowboys, stagecoach robbers, common garden varieties of outlaws, thieves, and cattle rustlers being the favorite actors, but unfortunately for the emotions of childhood even animals, horses, cows and dogs are also utilized in the cast.

We have personally seen the pernicious effects of television on the emotional make-up of children, even of infants, which would appear incomprehensible except that such incidents are true. A few may be quoted for the lessons they contain. An 8-year old boy, a "nervous" child and badly spoiled, was intently glued to the video screen observing the wrestling matches which are timed to occur between 9 and 10 p.m., an hour when this small child should be deep in the embrace of the arms of Morpheus. His interest was so intent that the child began biting his nails, removed both of his shoes, and climbed on the top of a sofa, the better to observe the contestants. The climax of tension occurred when, annoyed by the tactics of a wrestler, the boy threw his shoe through the screen with disastrous results to the set, the offending wrestler escaping injury, much to the chagrin of the small boy!

A little girl was dissolved in tears for the space of an hour upon observing a beautiful dog injured by a rock thrown by an outlaw, who later dragged the dog off the scene with a lariat tied about his throat. This same girl, a few nights later, while holding on her lap her younger sister of 3 years, became so excited that she dropped sister on the floor, much to the alarm of the sister and of the mother, who had visions of brain concussion.

An infant of 13 months was brought to see the writer because of "nervousness" and his pernicious habit of waking up during the night every hour on the hour, crying and shrieking, much to the discomfort of his parents and the neighboring cliff-dwellers in the apartment in which he lived.

Careful questioning brought out the fact that each evening between 6 and 7 p.m. the baby was permitted to see the "western" then showing. His main interest was to attempt to grasp on the screen the galloping horses as they darted by, which involved considerable frustration. Who knows but that during his hours of disturbed sleep he continued to attempt to catch with his tiny hands imaginary "Ghost Riders in the Sky" rushing along through the clouds of his befuddled brain?

Should we physicians not join together in an effort to eliminate the perils and hazards besetting child life and health which in recent years have been assuming more gigantic proportions?

J. S. W.

MEDICAL PROGRESS CUMULATIVE

The changing trends in the treatment of disease present an absorbing topic for study and contemplation for anyone interested in the history and progress of medicine.

Out of superstition, witchcraft and mumbo-jumbo, medicine emerged into an era of pure empiricism equally chaotic. Through the microscope and through discoveries in organic, inorganic and biologic chemistry advances were made into a new field of science. The implications are so vast that only now are signs of integration being evidenced. Progress has been necessarily slow and each step has witnessed epochal and dramatic advances. The unfortunate fact is, however, that overenthusiastic reception of each group of discoveries has produced an overshadowing and partial eclipse of preëxisting valuable methods.

Following Louis Pasteur all efforts toward advance were in a line of endeavor to correlate all symptoms of sickness with his bacterial theories and those of his disciples. Out of these endeavors emerged the theory of controlled immunity with the practical eradication of typhoid fever and diphtheria. Indirectly there followed the recognition of the intermediary host factor in the world's most terrible scourges, and control of malaria, yellow fever, typhus and bubonic plague by sanitation.

With the school of Osler and his associates, given impetus by roentgenology and slowly improving laboratory methods, the fad of cause and effect reasoning became predominant. Far-reaching advances in diagnostic methods were recorded and the groundwork was laid for epidemiology and rationalized preventive medicine. But here again overenthusiasm took its toll. In place of attempting integration with previous advances, the members of this group are satisfied with the mere making of hitherto unmakable diagnoses, and their attitude led to the era of therapeutic nihilism. Also omitted from their cause and effect reasoning was the vast field of degenerative diseases, including the cardiovascular renal complex, coronary artery disease, and diverticulosis of the colon. Absent likewise from their work was any emphasis on the psychogenic disturbances fully recognized for many years by the observant family physician with his intimate first-hand knowledge of his patients, and now probably overemphasized by the many writers on so-called psychosomatic medicine.

With advances in chemical syntheses making vitamins and hormones available, and with chemotherapeutic and antibiotic agents in confusing abundance, we are in an era hailed by many as the medical millennium. It is most certainly the millennium for the manufacturers of hypodermic equipment.

Once again history repeats itself. Once again we are permitting our enthusiasm to obscure good judgment and are accepting these miraculous substances as the final answer to the age-old quest for Panacea. We are injecting hormones and vitamins without proper investigation of the patient's need for them. When older and safer, if less glamorous, agents in our armamentarium would serve as well, we are sensitizing many patients to chemotherapeutic drugs, making their use unwise and often terminating treatment too quickly when they are indicated, thereby building up strains of resistant organisms which may well present us with more formidable problems than we face today. The resistance of the present-day spirochete to arsenicals and of the housefly to DDT should give us cause for reflection.

It is not the province or purpose of this brief article to enumerate the valuable methods and plans of treatment used successfully in the past, nor is it the aim to enter into a discussion of the relative merits of the new therapeutic agents, or of the advisability of using them in different combinations. It is, however, surely relevant to call attention to the increasing evidence of complicating secondary infections, due to the destruction of the more sensitive pathogens by one antibiotic, thereby permitting the development of more resistant strains, hitherto held in biologic check by the eliminated organisms.

Intensive search for new and improved methods and agents must of necessity proceed. However, it is unwise to discard as worthless methods and agents successfully used by good clinicians in the past. Those of us who were present at the recent discussion of the adrenal cortex steroids were thrilled by the pictures showing the dramatic results obtained in rheumatoid arthritis. We have witnessed, many times, equally dramatic results from the use of massive doses (10 Gm.) of sodium salicylate by retention enema, both in rheumatoid arthritis and in rheumatic fever. Admittedly the results were not as consistently favorable, probably because of less accurate diagnostic methods (sedimentation rate, blood cultures, etc.). However, given proper diagnosis, this almost forgotten therapy of a quarter of a century ago will not suffer too greatly by comparison with the new but unavailable hormone treatment.

Just one more thought from the mental wanderings of an old G.P. In recent weeks he has asked a large number of young physicians about the use of spirits of glonoin. Not one had ever employed it, and only three had ever heard of it. They were all familiar with the use of nitroglycerin in the control of angina, but were totally ignorant of the positive action and easily regulated dosage of the solution in continuous treatment. Yet spirits of glonoin is still one of the most valuable drugs in the treatment of hypertension and coronary insufficiency.

We are living today in an age in which training and a proper evaluation of past experience should enable us to utilize sanely the accumulated advances in medicine and not be swayed by overenthusiasm for a single new field of endeavor.

R. L. S.

CAN PENICILLIN CONQUER VD?*

The many people who believe that venereal diseases have been conquered by penicillin and that social hygienists now can rest on their laurels are laboring under a grave misapprehension. Medication can cure individual cases, but it can't control VD. In number of cases, syphilis and gonorrhea continue to head the group of serious communicable diseases year after year. In 1949 there were more than 639,000 VD cases under medical care in the United States. Only one infectious disease, measles, topped this figure. And it is reliably estimated that there are another 600,000 cases undiscovered and not under medical care.

Penicillin may cure VD, but penicillin can't find those missing cases, nor can it keep those who are cured from getting reinfected, and many of them do. Most important of all, neither penicillin nor any other medication can prevent the promiscuous sexual behavior that spreads VD. Only education, ethical guidance, and character building can do that.

"Care at St. Elizabeths Hospital of District patients with central nervous system syphilis is costing Washington taxpayers about $1,000,000 annually," reports Dr. S. Ross Taggart, Chief of the D. C. Health Department's Bureau of Venereal Diseases, to the Social Hygiene Society. "Although we probably can now cure the disease quickly and thoroughly," he continued, "if discovered in its early stages, there still are many old untreated or partially-treated cases that are developing late stages. Under the former arsenical treatment which required a year and a half, only a small percentage of infected persons continued treatment until cured. With the one- or two-week penicillin treatment, almost 100 per cent of the cases found remain under treatment until cured."

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* This editorial is the gist of Dr. Herbst's opening remarks at the Annual Social Hygiene Day Luncheon, February 8, 1950.

Our good colleagues of the D. C. Society for the Prevention of Blindness furnish some striking figures to illustrate how VD affects their field. Even today 10 per cent of the Nation's children entering schools for the blind are there because of syphilis and gonorrhea. In 1936 the figure was 21 per cent; thus you can see that fine progress has been made. But as long as VD is still among the major destroyers of sight and is responsible for an estimated 17 per cent of the 259,000 blind persons now in the United States, there's plenty of work to be done in that aspect alone.

Despite the present wide extent of the VD problem, however, the past 20 years have seen great progress in diagnosis and treatment, and these advances have been reflected in our sickness and death rates. In 1936 the syphilis death rate was 16.2 per 100,000 population; by 1946 this was reduced to 9.3, and it is still going down. Additionally there have been notable reductions in the birth of malformed babies, heart disease, mental breakdown, and blindness caused by the spirochete and the gonococcus. All this saving of lives and lessening of need for institutional care has been a boon to suffering humanity and has saved taxpayers and industry literally millions of dollars. All this—and the still greater advances yet to come—can logically be credited to the efficient teamwork of public health, private medicine, and social hygiene, working together for a healthier, happier humanity. In essence, then, as the old song has it, "We've come a long way together but we still have a long way to go."

William P. Herbst, M.D.
President, Social Hygiene Society of the District of Columbia

In and Out of Focus

BY THE OBSERVER

Our Society and Civil Defense Efforts of the Society's Committee on Emergency Medical Service to get under way with plans to cope with a possible wartime disaster in Washington have previously been recorded in this column. It will be recalled that the Committee was inactive for many months due to the lack of official support. However, under the wise and forward-looking leadership of Dr. A. Clagett Gray, its chairman, a program slowly began to take shape.

A few months ago Dr. Gray appointed what was called the Subcommittee on Preliminary Estimates. Its function was to evaluate the civil defense problem from the medical standpoint and to suggest the steps to be taken to effect an efficient organization. Dr. William D. Claudy, the energetic Chairman of the Subcommittee, and his co-workers (among them nationally known authorities in the field of atomic warfare) undertook the task assigned them with enthusiasm and vigor. They finally came up with a comprehensive report setting forth in considerable detail the essentials of an adequate program. First, they said, resources in available medical personnel, i.e., physicians, dentists, veterinarians, nurses, technicians and, in fact, everyone professionally engaged in caring for the sick, should be determined. It was equally important, they said, to make a list of essential medical supplies. Later would come coördination with medical institutions and other services.

Early in the Subcommittee's deliberations it was recognized that no plan would be effective unless the entire metropolitan area was included. The Society's Executive Board agreed with this view. The medical societies in Montgomery and Prince Georges counties, Maryland, and Alexandria City and Arlington County, Virginia, were therefore invited to participate. Each of these organizations immediately appointed representatives. They have met regularly with the Subcommittee, coöperating most effectively in the development of an emergency medical plan.

Late in February the Society received a communication from Brigadier General Gordon R. Young, stating that the District Commissioners had scheduled a meeting for March 3, 1950, at which time plans for civil defense in the District of Columbia would be considered. The Society was invited to have representatives present. Dr. Gray, Dr. Claudy and the Secretary of the Society were thereupon appointed.

General Young presided at this meeting. He stated the urgent need for prompt action and presented a basic outline of a civil defense program. He said it was desirable for the medical group to begin its discussions at once. Inspector Lloyd Kelly of the Metropolitan Police Department was named General Chairman of the Temporary Committee for Civilian Defense of the District of Columbia. He requested the Society's representatives to take the leadership in the medical phase of the program.

The preliminary planning done by the Committee's subcommittee proved exceedingly helpful to the newly created Medical Committee on Civil Defense. Dr. Gray, who had been designated acting chairman by Inspector Kelly, opened the first meeting, which was held on March 24 in the Medical Society's building, by stating his views on the situation. Dr. Claudy reviewed the recommendations of his Subcommittee. Later in the proceedings he was elected the permanent chairman of the Medical Committee and was authorized to appoint other officers to assist him.

The Committee adopted the following recommendations which were included in Dr. Gray's statement:

1. That the activities of this Committee not be confined to the District but be expanded to include the Metropolitan Area.

2. That a Subcommittee on Resources be established to include representatives of the various professional organizations represented at the first meeting of the Medical Committee and that the Subcommittee be authorized to ascertain the medical and allied personnel available in the Metropolitan Area without further authorization from the Committee.

Participating in this meeting were: Dr. Alfred E. Brigulio (George Washington University), Dr. Arthur Simmons (Howard University), Lt. Colonel Arnold Watts and Dr. Cyrus H. Maxwell (Medical Reserve Units), Miss Edith M. Beattie, Miss Marie Wallace and Lt. Colonel Burdette Shearer (Graduate Nurses' Association), Mr. Nat C. Wilson and Dr. R. Lyman Sexton (American Red Cross), Dr. William D. Claudy, Dr. A. Clagett Gray and Mr. Theodore Wiprud (The Medical Society of the District of Columbia), Mr. Edward H. Steinberg (D. C. Dental Society), Dr. Claude G. Walker (Medico-Chirurgical Society of the District of Columbia, Inc.), Dr. John A. Reed (Metropolitan Police Department), Dr. Robert H. Flinn (U. S. Public Health Service), Colonel Robert E. Bitner (Military District of Washington), and Drs. Vincent M. Iovine, John B. Ross, Herman S. Wigodsky and Wolcott L. Etienne (Society's Committee on Emergency Medical Service of the Washington Metropolitan Area).

Dr. Claudy announced before the meeting adjourned that Drs. R. Lyman Sexton, John B. Ross and he had been invited by the District Commissioners to attend courses of instruction in atomic and bacteriological warfare at Johns Hopkins Medical School. They accepted and attended sessions during the week beginning March 27.

It should be emphasized that the organization of the Medical Committee is temporary and that only a beginning has been made. Much remains to be done in the way of organization and planning; in fact, the task ahead is a gigantic one which will demand a great deal of time and sacrifice on the part of those who participate. But the situation is urgent, and sound planning and execution of an adequate emergency medical program is vital to the welfare of every citizen in the Nation's Capital.

★

The Bedside Manner in Politics Great Britain's newest political leader of first rank is a physician. He is credited with having had more to do with the recent upsurge in the fortunes of the Conservative party than Winston Churchill. If the Labor Government should give way to the Conservatives, he may become the Minister of Health and, says one reporter, "his skill with simple words may even carry him further than that."

The political ascendency of Dr. Charles Hill, the 40-year old General Secretary of the British Medical Association, was graphically described by Mr. Frank Gervasi in an article entitled " 'Radio Doctor' Nearly Beat Attlee," which appeared in the *Washington Post* on March 19, 1950.

"Imagine the voluble Dr. Morris Fishbein," writes Mr. Gervasi, "swinging a national election in favor of the Republicans with a single radio broadcast, and you will begin to understand what happened here [London] on the crucial night of February 14."

Dr. Hill, a Tory, who was elected to Parliament in the February election, is a man of humble beginnings. He was one of four children born in the slums of Islington. His father, described by Mr. Gervasi as a "working man," died when Dr. Hill was three; thereafter his mother was obliged to go to work to keep the family going.

> "His intimacy with a childhood poverty which he overcame by sheer toil," Mr. Gervasi continues, "undoubtedly helped him to be as effective as he was on that important February night in debunking the Labor Party's claims of the benefits it had bestowed on Britons during its five-year stewardship of the government.
>
> "Putting on his best bedside manner and slipping familiarly into Cockney whenever necessary, Dr. Hill flayed Labor's performance in providing food, in administering the social services, in the housing field and in national economics generally.
>
> "Almost simultaneously, in Edinburgh, the Tory big gun, Churchill, was attacking Labor at a higher level, that of foreign policy.
>
> "Between them, the radio doctor and the statesman squeezed the Labor majority down. . . .
>
> "Of the two, even Conservative political technicians admit now, nearly a month after the event, Dr. Hill was the more effective. For it was he, with language anyone could understand, who shook waverers' faith in the Labor cause, and it was the undecided fifth, the so-called 'floaters,' who plumped for the Tories at the last moment, who almost swept the Laborites out of power."

Before his advent into politics, Dr. Hill was known to millions of BBC listeners as the Radio Doctor. He became famous for "his bluff, gruff style and his penchant for calling a bowel a bowel and for frequent references to 'the smallest room in the house,' one of his few euphemisms, by the way. His wartime fan mail was almost as voluminous as Churchill's."

> "His outspoken comments sometimes raised minor storms," says Mr. Gervasi. "In 1945 he provoked the wrath of the International Wool Secretariat by declaring that 'wool next to the skin becomes soggy, like a wet blanket, while cotton or linen, if loosely woven or knitted, does not.' He denounced 'flannel undies' as no good, 'whether they're red or not.'
>
> "The Wool Secretariat declared Dr. Hill's assertions to be 'unscientific and unsubstantiated' and opined that his statements were 'likely to interfere with economic development along the lines on which the English people and the British Empire so heavily depend.'
>
> "There were, naturally, letters to the editor of the *Times*. Questions were asked in Parliament. But the Radio Doctor went calmly on with his broadcasts. When the political moment arrived, he had a ready made audience."

Churchill, it appears, was impressed with the Radio Doctor. When the Conservative hierarchy proposed that the doctor speak during one of the few periods on BBC devoted to campaign politics, he "heartily approved." For the first time Dr. Hill dropped his anonymity (he had consistently avoided the use of his name in connection with his health broadcasts although his identity was generally known), and delivered himself as follows:

" 'It isn't as the Radio Doctor that I'm speaking tonight and it isn't about aches and pains or babies and backaches.

" 'It's politics. I came to the conclusion that the real issue is between socialism and freedom. . . .'

" 'The Socialists say that the death rate is the lowest ever, that the infant death rate is the lowest ever, that the death rate among mothers is the lowest ever.

" 'Therefore, they say, vote for us, for we did it.

" 'You remember the old tag that figures can't lie, but liars can figure. Now the bald statements are true. The death rate is the lowest ever.

" 'But so was it in 1930, 1910 and 1905 as well. Dear me, the death rate, with a few minor ups and downs, has been going down steadily since the beginning of the century. . . .'

" 'I suspect it was due to M and B (new drug) rather than to M.P.'s (members of Parliament); to penicillin, not to politicians.' "

A bitter foe of socialized medicine, according to Mr. Gervasi, Dr. Hill "lost his battle merely because a majority of Britain's physicians joined the National Health Service, believing it to be a good thing for the people."

Dr. Hill is not so well known to physicians on this side of the Atlantic. Now that he is a public figure he will undoubtedly attract wide attention among his American colleagues.

★

Medicinae Doctor, 1950

In the opinion of Dr. Paul Dufault, who gave the annual oration before the Worcester (Massachusetts) District Medical Society last October, doctors have risen rapidly in public esteem in the last few years.

Throughout the eighteenth and early nineteenth centuries they were the object of criticism and ridicule. Their prestige rose in the latter part of the nineteenth century when Pasteur, Lister and others made far-reaching discoveries. However, it was not until the twentieth century that physicians really came into their own.

It was during this period that doctors decided to present their case to the reading public. Such books as "The Horse and Buggy Doctor," "Consultation Room" and "Memoirs of a Surgeon" made their appearance in the book stores. Readers were "interested and not a little impressed," observed Dr. Dufault.

Dr. Kildare also made his debut in the movies. Thereafter doctors were cast in an heroic mold. They became supermen who, when the situation demanded, "could win a race with death by a mere stitch."

"The culmination to this ascension came," Dr Dufault said, "when the world proclaimed that the physician was so indispensable to the welfare of the common man that he had to be listed among the national assets like natural resources, and to come under the general heading of Public Utility. The doctor had never thought he was that good. If he did not care to be laughed at, he did not want to be so popular either. Yet there he is today on a pinnacle, a little dizzy from the height, and very perplexed about how he can come down without having to jump into the net of officialdom.

"Reflecting on the whims of fortune, the physician today is in the proper mood to take appraisal of the situation, without unbecoming vanity for his achievements or undue indulgence for his shortcomings. He realizes that his is a multiple personality and that the species Medicinae Doctor has, through a process of natural evolution, developed into many varieties presenting special characteristics. These he considers in a light vein, in caricatures devoid of malice."

What kind of man is the doctor of our day? Here is the way Dr. Dufault sees him:

"The *internist*, for example, is recognizable by his preoccupied look, as a man wrestling with difficulties. His gait is steady but careful, as if he were treading on treacherous ground. In fact he is always walking from one riddle into another. What is wheezing in that chest? What is growling in that abdomen? He looks, he listens, he percusses, he palpates, and he still does not know. Considering every organ as a potential villain, he suspects the liver, distrusts the pancreas, questions the stomach and has his doubts about the kidneys. To him the abdominal wall is a wailing wall, and the human body a walking box of Pandora containing all possible ills. The sibylline reports emanating from the X-ray room and the logarithmic formulas pouring out of the laboratory only add to his confusion. In his desperation he would like to ask his surgical colleague to look in, but he hates to let him loose in a defenseless abdomen, and besides, he is afraid that his able confrere would claim most of the credit and take all the available cash.

"The *surgeon* cuts more of a figure. His walk is brisk, and his carriage buoyant. Obviously, his path is clear. He exudes optimism and radiates confidence. Being a thorough man, he leaves no stone unturned, so that the world has few secrets for him, and his patients none. He invariably goes to the bottom of the question, no matter how deep, and if he comes out bloody he holds the answer in his hand. The burden of accumulated uncertainty that weighs on the shoulders of the internist never bends the surgeon's erect structure.

"The *pathologist* is a thoroughly perverse person who delights in reporting as normal appendices that at the time of operation were full of promise, and in calling benign, tumors sufficiently ugly looking to be malignant. In his postmortem reports he systematically avoids any mention of the clinical or preoperative diagnosis, and if an irate clinician or an incensed surgeon breaks into his laboratory to demand an explanation, he wastes no words. Placing a slide, any slide, on the mechanical stage, he invites his visitors to look, knowing full well that neither one nor the other will, and that, if he did, he could not tell the difference. This mastery explains his suave manner and his calm assurance even in the midst of heated debates.

"The *specialist* lives apart from the milling throng, in a slightly rarefied atmosphere, where only selected segments of human ills are allowed to penetrate. Of the others he claims no use and wants no knowledge. He accepts his universe the way he sees it through the narrow aperture of his choice, limited and somewhat distorted. To the oculist, it is a squint; to the nose and throat man, it is either a sniff or a gag; and to the dermatologist, it is nothing but an itch. But in case you feel sorry for the orthopedist to whom this world is a joint, just think of what it is to the proctologist!

"Those who have reached middle age still remember the *general practitioners*, now almost extinct in some localities. Closely resembling modern internists, they were a grand old type, free lancing in abscesses and phlegmons, shuttling between mother and baby, turning a hand at small repairs, amputating a finger, sewing a cut, making little incursions into allergic territory, encouraging the depressed wife, upbraiding the exuberant husband, looking into a roguish eye, peering into a deaf ear, holding down a rebellious stomach or extinguishing a fiery rash as the occasion arose. They knew much about many things and did much for many people. May fate be kind to those who remain!

"Like the llama of the Andes, the *psychiatrist* finds his pastures on high plateaus, where he roams at will in unlimited spaces. When he descends to the plains for an occasional taste of physical medicine and a casual look at his confreres, he finds the latter a little queer. In his presence, puzzled internists, positive pathologists, detached specialists and even enterprising surgeons experience the same feeling of self-consciousness. They dare not talk lest their words reveal some ugly part of their subconscious. They dare not move, in fear that an unguarded gesture will lift the veil concealing their suppressed desires. At the first opportunity they look for cover, leaving their awe-inspiring colleague free to return to his cloud-swept altitudes.

"On the fringes of the medical city there lives another subvariety of doctors. These have wandered from the rest of the tribe and found their way into the various state or federal reservations where they have become domesticated. They are not held in too high esteem by their wild brothers, but as they are unobtrusive, innocuous and content with the least desirable quarters of the city, they are allowed to come and go unmolested. Their only characteristic is their tame appearance.

"Whatever his category, the physician shares with all his colleagues the same basic qualities. He is primarily a hard-working person. Exacting, arduous and prolonged hours are his lot from the beginning, and the fast pace set during his training period seldom slows down appreciably for the first twenty-five years of practice. Hospital visits, house calls and office hours fill the days of his years with the excitement of diagnosis, with the thrills of treatment and with the satisfaction of seeing improvement and cure, as well as with the disappointment of failure."

* * *

Geriatrics Invades the Financial Page An increasing number of writers—medical and lay—are devoting their attention to what is rapidly becoming a major problem in this country—what to do about our aging population. That is not surprising when one considers that it is a subject which has many facets.

While the good health of our oldsters is of primary importance, there are many other factors contributing to their well-being. The social and economic problems of the aged are deservedly receiving thoughtful consideration by educators, sociologists, psychologists, business men, labor leaders and others.

Your Observer seldom reads the financial page in the newspapers which come to his home. However, one evening recently his attention was drawn to the headline: "Geriatrics Is Big Business: You Ought to Prepare for It." This was odd, he thought, but old age certainly has its financial side. Prompted by curiosity he read what J. A. Livingston of the *Washington Post* had to say on the subject. As a result, a substantial portion is published herewith.

> "For the most part, Americans are not prepared for leisure. We're not like Europeans. Here work is religion—the be-all and end-all of life. But in England, in France, in Italy, the purpose of work is to quit. You put in your daily stint to save enough so that you will no longer have to work. And you spend your idle moments figuring out what you'll do when you retire. You plan.
>
> "Some Englishmen finish out their days happily writing vitriolic letters to the *London Times*. Some paint. Some compose music. To Europeans, an avocation is fully as important as a vocation. When a man retires he's a success. He's not—at least up till now, as in the United States—a 'has been.' "

Everyone now wants a pension, and the 1950's, Mr. Livingston says, may well be remembered as "America's Age of Retirement." There are few business men who have not made provisions for the day when they relinquish their arduous duties. Not many are as fortunate as Walter Gifford, former head of the American Telephone & Telegraph Company, who retired on a pension of $95,000 a year. The vast majority must be content with pensions of $100, or slightly more, a month.

> "But having the dough on which to retire," Mr. Livingston observes, "isn't successful retirement. How many times have you heard of Ed Smith or John Jones 'getting out of harness,' and dying of heart failure. The body couldn't stand the change of pace—leisure."

Mr Livingston's advice, while familiar to physicians, is sound and well stated.

> "Retirement should be gradual. Prepare for it while in your prime of life. Take an interest in public affairs—become active in neighborhood politics. Participate in social activities. Raise funds for the Community Chest, or hospitals. Also develop hobbies—things to do when you're emancipated from the hard task of earning a living. Learn to play the piano, collect coins, paint, pan gold as one retired couple did, try writing short stories, become a bridge expert, breed dogs, or raise rare flowers. Or you might even go into some other type of business, in which the need to make money—to compete—might not be too strenuous.
>
> "Retirement is the time for achieving unfulfilled ambitions. But the ambitions must be kept alive—by cultivation and practice. They cannot be permitted to die of dormancy."

Of the future, the writer concludes that "with the population growing older and with everyone queueing up for pensions, geriatrics in the United States is bound to be big business."

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The Doctor Cannot Win!

Time and again during his long association with the medical profession, your Observer has been impressed by the sincere humility of conscientious physicians. Pretense and false modesty have no place in their make-up for they are only too keenly aware of their professional limitations despite the remarkable progress made by medical science in the past half century. They are the first to admit that the knowledge which they have acquired is infinitesimal compared to the vast unknown.

At best, physicians are waging a losing fight, one in which defeat is inevitable. Nevertheless they press on, winning skirmishes here and executing delaying actions there. The net result for humanity has been a longer and healthier existence with the promise of a still brighter future.

Few have stated this situation more eloquently than Frank G. Dickinson, Director of the AMA's Bureau of Medical Economic Research. Following is an excerpt from the remarks which he made in a round table discussion on health insurance at the University of Wisconsin last November:

> "It is the disturbing premise of the practice of medicine that the doctor cannot win. Let's say that when he saves a woman in childbirth—we've been talking about maternal mortality—he just adds her name to the list of potential victims of cancer years later. Let's say the patient saved is a laboring man with pneumonia; all the doctor does is to add one more name to the list of

(*Continued on page 294*)

Our Living Past Presidents

OSCAR BENWOOD HUNTER, SR., M.D., F.A.C.P., President, 1928

Dr. Oscar Benwood Hunter, Sr., is in many respects unique among medical figures. First of all, he is a man of seemingly inexhaustible energy. Washington has never seen his like in this respect. Where other men weary and gladly lay their burdens to one side, he seems to thrive on increasing responsibilities.

Dr. Hunter never does anything by halves. In fact, he does everything superlatively well. His primary interest is, of course, his profession; a jealous guardian of his specialty, pathology, he feels it is being threatened by the encroachment of hospitals in the field of medical practice. He has let it be known that he highly disapproves of this trend.

From the standpoint of organizational ability, he excels the experts. An enthusiast, he gives the closest attention to details and never hesitates to experiment with methods which may further the success of any undertaking for which he is responsible.

Finally, he enjoys the distinction of being a physician with a business sense and an unusually keen one at that. To him must go a large share of the credit for such ambitious financial ventures as the Doctors Hospital and the three large medical buildings which surround it.

Born in Cherrydale, Virginia, January 31, 1888, Dr. Hunter attended Georgetown Preparatory School and Emerson Institute. He obtained his degree of Doctor of Medicine from George Washington University in 1912, Bachelor of Arts in 1916, and Master of Arts in 1917. Immediately upon his graduation from medical school he became Instructor in Anatomy at George Washington University and continued to hold various posts on the faculty of his Alma Mater until 1932. From 1913 to 1916 he was Professor of Histology and Embryology, and from 1916 to 1932, Professor of Bacteriology and Pathology. In 1918 he was Acting Dean of the School of Dentistry; 1918–30, Assistant Dean of the School of Medicine (he was Acting Dean of the School at intervals during this period); and 1916–32, Pathologist in Chief, George Washington University Hospital and Dispensary.

He was the Kober Lecturer at Georgetown University in 1926; at the same institution he was Professorial Lecturer from 1935 to 1945 and Adjunct Professor of Medicine, 1945 to 1947. He has been Professorial Lecturer at American University since 1940 and a member of the University's Committee on Medical Technology.

These are only a few of his appointments as a medical educator. It should be mentioned that Dr. Hunter, in his effort to obtain a medical education, came up the hard way. He was always, from the beginning, an indefatigable worker and to this day feels that others must take the arduous path if they are to succeed. One of his staunchest friends and advisers in his early years was Dean William C. Borden of George Washington University School of Medicine.

Among the organizations of which he is Past President are: American Therapeutic Association, 1938–39 (he is now Secretary of that group); Southern Medical Association, 1948–49; George Washington University Medical Society, 1918–19 and 1938–39 (Secretary since 1939); Washington Society of Pathologists, 1937–38; and General Alumni Association of George Washington University, 1928–29.

Among other organizations with which he is affiliated are: American College of Physicians, International College of Surgeons, College of American Pathologists, American Hospital Association, Washington Heart Association, American Heart Association, Washington Academy of Medicine, International Association of Medical Museums, Rheumatism Society of the District of Columbia, American Medical Association, American Association of Anatomists, American Society of Bacteriologists, American Association of Pathologists and Bacteriologists, International Medical Club, Tri-State Medical Society, Hippocrates-Galen Society, American Association of University Professors, Association of Military Surgeons, American Public Health Association, Reserve Officers' Association of the United States, National Safety Council, and U. S. Chamber of Commerce.

Dr. Hunter is Chairman of the Section on Pathology and Laboratory Medicine of The Medical Society of the District of Columbia, a member of the Board of Trustees of Group Hospitalization, Inc. and of the Hospital Service Agency.

Fraternal clubs to which he belongs are University, Kiwanis (of which he was President in 1941), Corinthian Yacht and Cosmos.

Mrs. Hunter is the former Sidney Sophia Pearson. The Hunters have four children. Best known to the medical profession is Dr. O. Benwood Hunter, Jr., who has also made a name for himself in pathology and is associated with his father. His daughters are Mrs. Richard H. Fischer, Mary Ellen Hunter and Margaret Pearson Hunter. The latter two are employed in their father's office.

The above is only a résumé of Dr. Hunter's past activities and his present affiliations. However, it gives the reader some idea of his tremendous energy. No organization has benefited more from his abilities and generosity than the Medical Society of the District of Columbia. Not only has he served as its President but on numerous occasions, as chairman or member of the planning committee, he has been lavish with both his time and his money. The Society is more deeply indebted to him than its members realize.

An example of his generosity was his recent activity on behalf of the AMA's Interim Session in Washington last December. He accepted the chairmanship of the local committee on arrangements very reluctantly, but having taken on the task he gave it everything he had. He simply does not understand those who allow their names to be listed on committees with no feeling of obligation.

It is pleasant to report that Dr. Hunter is still as vigorous as he has always been and that he still has much to contribute to his profession and to the people of his community.

T. W.

MEDICAL SERVICE AND CIVIL DEFENSE

Editor's Note: The following is the text of a report submitted by the Subcommittee on Preliminary Estimates to the District Medical Society's Committee on Emergency Medical Service of the Washington Metropolitan Area. This report was approved by the Committee and the Society's Executive Board. Later it was read by Dr. William D. Claudy, Chairman of the Subcommittee, to the Medical Committee on Civil Defense. This Committee was recently created at the request of the District Commissioners.

This important document is the result of many hours of deliberation by the Subcommittee, which submitted it with the recommendation that it be used as a guide in the development of an emergency medical service. This recommendation was accepted by the Commissioners' Medical Committee on Civil Defense.

Immediately following the appointment of this committee, preliminary consultations were held with Colonel William L. Wilson, Special Assistant to the Surgeon General of the United States, in Charge of Disaster Planning, which resulted in the formulation of a preliminary outline, which was used as a guide for all further deliberations of the subcommittee. The various problems it suggested were studied and recommendations made.

Any local plan to deal successfully with disasters of the magnitude of an atomic bomb explosion must be handled on a geographic basis, which includes the Metropolitan Area, with later additional expansion to surrounding areas. Any other approach is unrealistic. Following the initial meeting held by the Commissioners of the District of Columbia concerning activation of civilian defense, this opinion was unanimously reiterated.

The Subcommittee of the Committee on Emergency Medical Service voted to invite representatives from the Medical Society of the District of Columbia, the Alexandria City and Arlington County medical societies, and the Prince Georges County and Montgomery County medical societies. It recommended to the Committee that it henceforth include these representatives and that it change its name to the Committee on Emergency Medical Service for the Metropolitan Area. This was approved by the Committee and the Executive Board of the District of Columbia Medical Society.

To expedite geographical spotting of various facilities, a large map of the Washington Metropolitan Area was mounted in the Society's Executive Offices. Contour maps and a map supplied by the District Government with two assumed atom bomb incidents indicated are at the disposal of the Committee.

The Committee on Emergency Medical Service for the Metropolitan Area should authorize formulation of a publicity committee to disseminate to press and public information concerning the activities of the Committee, as well as facts which might assist citizens in understanding the magnitude of the medical problem, and the constructive steps that are being taken to solve that problem; and to give them such information as might help provide individual protection from atomic bombings.

Basic assumptions were proposed by the subcommittee concerning the present status of the problem.

(1) The Metropolitan Area has sufficient medical resources to contend with most peacetime disasters. To date no adequate method of utilizing them exists. Outside of police and fire protective services, there is no prearranged disaster plan. There is no coördination of these protective services in the various jurisdictions. The recent airline crashes were inefficiently handled by the civilian units participating because of lack of coördination and, had there been a number of seriously injured casualties, the death toll might have been increased. Had a second similar disaster occurred, the confusion would have been further aggravated.

This is not a criticism of police and fire departments, which did their work with dispatch, but it is a criticism of the political situation which prevents adequate preplanning and coördination. While the "on scene" handling of disasters may be adequate, reception of a large number of casualties in area hospitals in the absence of a disaster plan designed to supply medical personnel, beds, supplies and equipment would lead to further ineffectiveness.

The subcommittee recommends immediate steps to remedy this situation.

The necessity of a central dispatching agency for physicians, rescue squads and ambulances in peacetime disasters is evident. For the dispatching of rescue squads, medical transportation (ambulances), etc., the dispatchers of either the police or fire departments (*but not both*) should be utilized. Each area must determine which agency and individuals should control the dispatching of physicians. In the District of Columbia, the Medical Bureau could act on the orders of a medical coördinator or his alternate. For interim coverage of peacetime disasters, panels of physicians physically able to respond rapidly should be established.

The Subcommittee called for the immediate naming of a medical disaster coördinator, and first, second and third alternates from each of the five communities. As soon as such appointments are made and confirmed, this information should be widely disseminated in every area amongst all organizations which might be involved in disaster relief, including police and fire departments, military establishments, hospitals, medical societies, and Red Cross chapters.

Final designation of medical authority must be on the advice of the Committee on Emergency Medical Service. The medical coördinator in any area must be in charge of all medical activities in his area.

(2) *Second basic assumption.* This Metropolitan Area is now completely unprepared to meet any major disaster such as might result from enemy action with atomic bombs or similar weapons.

This area can be prepared, but even minimal readiness by civil authorities and the medical profession will require an estimated $1\frac{1}{2}$ to 2 years. The medical societies need not speculate as to the possibilities of enemy action against this country but must assume that, should such action occur, this area will be a top priority target. It is therefore urgent that medical preparations for these contingencies be made; and this group should urge development of allied groups for integration with the medical plan.

From this point on, the subcommittee assumes that the incident to be handled will be the result of one or more atomic bombs exploding in the Washington area. Plans which can efficiently handle disasters of this magnitude should handle lesser incidents with dispatch.

Disaster planning must cover three major phases. These are: (1) estimation of resources; (2) estimation of incident; (3) estimation of management and operation (actually the integration of items 1 and 2).

In estimating the resources available, the study must be divided into (a) personnel, (b) hospital facilities, and (c) medical transportation.

Information should be obtained regarding the following:

- General Practitioners
- Specialists
  (according to either general
  acceptance or certification)
- Public Health Personnel
- Other Medical Personnel
  - Dentists
  - Graduate Nurses
  - Pharmacists
  - Veterinarians
  - Sanitarians
  - Dieticians
  - Technicians
  - Osteopaths
  - Optometrists

The Subcommittee recommends that each Committee member recommend to his society that such an inventory be immediately undertaken by each society on its local level, to be integrated by the Committee on Emergency Medical Service of the Metropolitan Area.

So that information be available, classified, and standardized for all groups, four forms were accepted by the subcommittee. They are: Form I, Tally Sheet; Form II, Master Sheet—Medical Personnel; Form III, Nurses' Sheet; and Form IV, Technicians' Sheet.

Master Sheets should be completed by all members of every society and copies filed with each medical society.

Form II should be used by each society in making the tally for Form I and copies of each filed by each society. Forms III and IV should be utilized in securing information of the personnel of auxiliary groups.

The Medical Society of the District of Columbia is to cut stencils and reproduce the forms, and the component medical societies will defray any material costs.

Hospital Facilities

Copies of the latest revision of the regional hospital survey, in accordance with Public Law no. 725 (Hospital Survey and Construction Act of 1946) have been secured. Questionnaires should be sent to all area hospitals requesting information on normal capacity and emergency expansion. Sources of additional equipment and supplies for such emergency expansion must be enumerated.

The Subcommittee recommends that all hospitals immediately formulate a preliminary disaster plan designed to provide efficient care for victims of potential peacetime disasters. This should include formulation of operating teams, burn teams, and other groups for handling efficiently large numbers of casualties. They should consider the problem of additional beds.

An area survey, to enumerate and locate facilities for emergency hospital centers (schools, hotels, etc.), and of the problem of staffing, equipping and supplying them, should be made. Transportation of medical personnel and of casualties from incidents to hospitals and to decentralized locations must be met. Transportation is not the problem of the medical service, but the agency responsible for supplying such transportation should consult with medical authorities regarding it.

ESTIMATION OF INCIDENT

All are agreed that to plan on less than 50,000 to 120,000 living casualties would be useless. Hence, a tremendous stockpiling of equipment and material will be necessary for emergency medical care. Such stockpiling should commence at once.

Reliable estimates for the barest necessities for immediate emergency care based on 1,000 casualties will require approximately the following, to keep one casualty alive for 3 days: 50 lbs. of supplies, at a cost of $25.00 per casualty, occupying about 4.2 cubic feet of space.

This includes only critical medical supplies and equipment. It does not include blood and blood derivatives, fuel, food, clothing or bedding.

The importance of time-phasing (work-day week, weekend, night) in its relation to number, type and distribution of casualties, as well as its effect on medical personnel, is evident. If the areas involved in the Commissioners' incidents were bombed on a work-day, a high percentage of the medical personnel of the area might be wiped out.

The foregoing problems must be considered on the local and area level.

The consensus, backed by Colonel Wilson's recommendations on this subject, is that Public Health personnel should not be included in this plan, since this group will be suddenly faced with public health and sanitation problems of magnitude. Their activities must be coördinated with ours, and the medical societies should supply additional professional personnel, should the Health Department request it.

Authority for medical planning should be clarified. Since this phase of the activity was considered by the Subcommittee, the Commissioners have indicated that medical groups should proceed with their planning. Legal authorization must be obtained to name a medical coördinator and his alternate, and to provide him with sufficient authority.

The necessity for unified communications is in need of urgent study. Communications include (a) Telephone, (b) Radio and (c) Messenger Service. Plans must be made to ensure the Emergency Medical Service of uninterrupted communications. Messenger Service may assume great importance in the shock phase of any incident, since destruction of telephone and radio facilities and widespread power failures are to be anticipated.

Early integration with other emergency services, particularly with police departments, fire departments, and military establishments, is essential. The Subcommittee recommends that the Commander of the Military District of Washington and his chief medical officer should participate in further deliberations of the Emergency Medical Service. The District Commissioners should send a liaison officer from the police and fire departments to attend all meetings of the Committee, and this procedure should also be followed in the surrounding areas.

The number and type of casualties will vary, not only with time-phasing but with the type of explosion. These include air, subterranean and water burst. Air burst is most likely. From 50,000 to 130,000 living casualties can be expected.

Burns will constitute the major portion of casualties due to direct exposure to the heat wave and to the subsequent fires. Radiation burns will be of lesser importance, even after several days. Next in importance will be crushing injuries, fractures, and lacerations resulting from severe concussion and widespread destruction of buildings. Radiation injuries will rank third and, despite the tremendously great number that may be seen, will not differ in quality from those produced by the usual peacetime sources of irradiation, and will therefore be reasonably well understood by the medical profession. There will be many combined types of casualties.

The Subcommittee recommends that the Emergency Medical Service Committee develop committees of qualified specialists to determine standards of treatment for all types of casualties. Nowhere is this more important than in a consideration of burns, where both definitive and emergency treatment are the subject of diverse opinions. This must be undertaken before stockpiling of supplies can commence, to avoid the acquisition of duplicate items.

The problem of blood and blood derivatives was touched on briefly. This will require much intensive study, probably coördinated with military establishments and the American Red Cross Blood Donor Service. Blood banks will be overwhelmed in the first test. Problems of obtaining, typing and identifying must be considered. The entire population may have to be typed and identified in some manner unlikely to be lost or destroyed following an incident. Tattooing of tiny marks under the arm pits was suggested. A committee should study this problem, as these products will be one of the mainstays of early treatment of most casualties.

The Subcommittee felt it would be advisable to enumerate the services for which the Emergency Medical Service should not be responsible. They include the following:

Mortuary
Identification
Feeding
Drinking water
Clothing
Shelter
Transportation
Traffic control lanes in disaster areas
Traffic control lanes around medical centers
Traffic control lanes for large-scale evacuation of the injured from the city
Sources of auxiliary personnel to be utilized by medical services (as litter bearers, Geiger counter operators, technicans and decontamination units, etc.)
Allied social services

The District Commissioners have indicated that the medical services should study biological and chemical warfare. These are secondary problems of medical service, since it is with their effects that we would deal rather than with their cause or prevention. In the absence of specific information as to what possible channels such action might take, it is impossible for us to plan logically or successfully to meet them. It is recommended that the Committee on Emergency Medical Service request information on these phases of the work from military authorities.

In the event of major population shifts, the city will be called on to supply expanded care to disaster victims and to nondisaster-produced casualties (those expected to be ill anyway and dislocated from their usual sources of medical care). This will apply to our population and to that which may drift here from other areas. This again must be planned for through integrated sources, and the Public Health Department must bear the brunt of the planning, though the medical societies will furnish personnel for this work.

It is recommended that members of the medical societies be given opportunity for special study in atomic, biological and chemical warfare. They can then assist in the training of other members, who can give instructions to the public. The specialized information thus acquired will expedite planning by the Committee on Emergency Medical Service.

There is a pressing need for immediate action. Many of the steps to be taken are indicated in the body of the report. This will be a long-term effort if the results are to have any permanent value. Publicity-engendered demands for hasty action must not be allowed to preëmpt the necessity for solid base planning.

This study is not to be kept secret. The more persons informed of our activities, the more confidence will be engendered.

All planning must be accomplished through the participation of the medical societies of the Metropolitan Area. Individually, they must be prepared to seek active authorization and coöperation from the governing bodies under which they work.

Collectively, they must be ready to seek Congressional legislation for the removal of politically restrictive boundaries. Reciprocity agreements between communities must be suspended in the event of a major disaster. An emergency area authority may have to be developed which will supersede all local governmental authorities. This will be necessary in many other phases of disaster relief work as well as in medical planning.

Final coördination by a single medical planning

(*Continued on page 294*)

AMERICAN UROLOGICAL ASSOCIATION TO MEET IN WASHINGTON, MAY 29–JUNE 1

The 45th Annual Meeting of the American Urological Association will convene at the Hotel Statler in Washington, D. C., May 29, 30, 31 and June 1, 1950. The registration booth on the Mezzanine Floor of the Hotel Statler will be open on Sunday, May 28, from 2 p.m. to 5 p.m. and from 8 a.m. to 5 p.m. on Monday, Tuesday, Wednesday and Thursday. The registration fee for members, visiting physicians and guests will be $25.00 each. Members of the District Medical Society are invited and encouraged to attend the scientific sessions.

Dr. William P. Herbst is Chairman of the Committee on Arrangements. Assisting him are Drs. Charles P. Howze, H. N. Dorman, Ralph M. Le Comte and Colonel James C. Kimbrough. The local committees which are assuming responsibility for various phases of the Convention and the Chairman of each are:

Housing: Dr. G. Roland Gable
Reception: Dr. R. Arthur Hooe
Registration: Dr. Charles P. Howze
Entertainment: Colonel Kimbrough
Transportation: Dr. Louis B. Bachrach
Public Relations: Dr. Herbst
Scientific Meetings: Dr. Frederick A. Reuter
Motion Picture: Dr. Lloyd G. Lewis
Scientific Exhibit: Dr. John M. Orem
Technical Exhibit: Dr. Dorman
Golf: Dr. Alan J. Chenery
Ladies Entertainment: Mrs. William P. Herbst

The list of participants in the program presages an outstanding scientific session. Space does not permit listing of both speakers and subjects; following are the names of physicians who will present papers and the date of their appearance on the program:

Monday, May 29:
- Ormond S. Culp, Detroit
- Joseph E. Maurer, Robert Lich, Jr. and Stephen Burdon, Louisville, Ky.
- James W. Merricks, R. K. Gilchrist, Howard Hamlin and I. T. Reiger, Chicago
- S. Richard Muellner, Boston
- Albert Verges-Flaque, New York City

Tuesday, May 30:
- Albert E. Bothe, Albert J. Dalton and Frederick O. Zillesson, Philadelphia
- William H. Boyce, Charlottesville, Va.
- Fletcher H. Colby and Walter S. Kerr, Jr., Boston
- Colonel James C. Kimbrough and Major Robert B. Rowe, Washington, D. C.
- Lawrence L. Lavalle and Frank C. Hamm, Brooklyn, N. Y.
- Henry Mortensen, Melbourne, Australia
- F. K. Mostofi and W. H. Morse, Washington, D. C.
- Phil R. Rezek, Milton M. Coplan, Frank M. Woods and Perry D. Melvin, Miami, Fla.
- Francis P. Twinem and Bruce Langdon, New York City

Wednesday, May 31:
- Roger Baker, Chicago
- R. G. Bunge, Iowa City, Iowa
- Franklin Farman and Kenneth A. Lemon, Whittier, Calif.
- Oswald S. Lowsley and Thomas J. Kirwin, New York City
- Meyer M. Melicow, New York City
- D. K. Rose, St. Louis, Mo.
- Don C. Van Cappellan, Amsterdam, Holland
- Rex E. Van Duzen, Dallas, Texas

Thursday, June 1:
- Benjamin S. Abeshouse and Tobias Weinberg, Baltimore
- Captain M. W. Arnold, Willard E. Goodwin and J. A. C. Colston, Baltimore
- John A. Benjamin and Charles E. Tobin, Rochester, N. Y.
- Robert R. Berneike and Clyde L. Deming, New Haven, Conn.
- Hathorn P. Brown and J. Hartwell Harrison, Boston
- F. N. Buck, R. C. Bunts and A. I. Dodson, Richmond, Va.
- David M. Davis, Philadelphia
- N. C. Foot, Gustavus A. Humphreys and Willet F. Whitmore, New York City
- Robert F. Gehres, Sacramento, Calif.
- William P. Herbst, Washington, D. C.
- Lieutenant William W. Miller, Jr., Pensacola, Fla.
- Reed M. Nesbit, John D. Adcock and William C. Baum, Ann Arbor, Mich.
- Emile S. Sayegh, Tanta, Egypt
- Parke G. Smith, Thomas W. Rush and Arthur T. Evans, Cincinnati, Ohio
- Myron J. Tremaine, Walter G. Maddock and Vincent J. O'Connor, Chicago

Several lectures are of particular interest. The Presidential Address by Dr. Carl Rusche of Hollywood, Calif., will be given on May 31 at 2 p.m. His subject is "Not by Medicine Alone." His address will be followed by the Ramon Guiteras Lecture on "Tumors of the Testis" by Dr. Robert A. Moore, Dean and Edward Mallinckrodt Professor of Pathology of Washington University (St. Louis) Medical School. The business meeting will follow.

The Fifth Annual Award for Research on Male Reproductive Tract will be presented on May 29 to Dr. Carl R. Moore, Professor of Zoology, University of Chicago. Dr. Moore will present his paper on "Experimental Studies on the Male Reproductive System."

The Medical Society of the District of Columbia will be ably represented at this meeting. Drs. Lloyd G. Lewis and Milton Friedman will have a scientific exhibit on "New Radiation Technic for Bladder Tumors." Dr. Herbst's paper, to be presented, June 1, carries the title, "Antihistamine: A Possible Relationship to Other Factors Influencing Infection." Among discussants of papers will be Drs. Lewis and J. E. Ash.

A full calendar of entertainment for the visitors has been planned. There will be the Annual Golf Tournament, inspection tours of the various Government hospitals and research centers, and a boat trip on the Potomac. Especially for the ladies there will be a luncheon and style show, and a sightseeing trip to Mount Vernon and Alexandria, Va. Two highlights of the social program are the President's Cocktail Party and the Annual Banquet on May 31.

10,000 PHYSICIANS EXPECTED AT AMA ANNUAL MEETING

Among the 10,000 physicians expected to attend the 99th annual meeting of the American Medical Association in San Francisco, June 26–30, a sizable group will be present from the District of Columbia. The AMA is the largest medical organization in the world, with a membership of about 144,500.

Attracting the doctors will be the scientific meetings and scientific and technical exhibits. More than 300 papers devoted to medical and surgical progress will be presented by outstanding physicians from all over the world.

"These features provide doctors with information on the latest developments in medicine," said Dr. George F. Lull, Chicago, Secretary and General Manager of the AMA. "It is such meetings as these that enable the Nation's medical profession to keep abreast of progress in diagnosis and treatment. The outstanding health record of the United States is the result."

The House of Delegates, the policy-making body of the AMA, which is made up of 198 elected representatives of constituent societies and Federal services, will consider matters relating to the health welfare of the country. It also will choose a president-elect, to be installed at the annual meeting in 1951. Meetings of the House of Delegates will be held in the Palace Hotel. They will be presided over by Dr. F. F. Borzell of Philadelphia, speaker of the House. Seated among the delegates will be Drs. Herbert P. Ramsey and Hugh H. Hussey, from Washington. Mr. Theodore Wiprud, Secretary of the District Medical Society, will also attend the meetings of the House.

The installation of Dr. Elmer L. Henderson, of Louisville, Ky., as President will take place on the evening of June 27. Dr. Henderson will succeed Dr. Ernest E. Irons of Chicago. The annual award for distinguished service to the medical profession will be made on that occasion. The winner will be selected by vote of the House of Delegates the day before. The Presidential Ball will be held on June 29. Both events will be in the Palace Hotel.

San Francisco's Civic Center, a group of buildings which has housed some of the largest national conventions, will be used for the scientific phase of the meeting. Scientific sessions, which will cover all phases of medicine and surgery, will be held in several buildings, including the High School of Commerce and Masonic Hall. A technical display by more than 280 exhibitors will be staged in the Civic Auditorium.

General scientific meetings will be held on the first two days of the convention. Sectional groups will meet on the next three days.

The section programs will deal with anesthesiology, dermatology and syphilology, diseases of the chest, experimental medicine and therapeutics, gastroenterology and proctology, general practice, internal medicine, otorhinolaryngology, physical medicine and rehabilitation, military medicine and surgery, allergy, nervous and mental diseases, obstetrics and gynecology, ophthalmology, orthopedic surgery, pathology and physiology, pediatrics, preventive and industrial medicine, public health, radiology, general and abdominal surgery, and urology.

Of educational interest also will be the presentation of surgical procedures over a closed television circuit. The operations will be performed in one of the local hospitals and transmitted in color to 20 receivers in Masonic Hall.

PAYMENT OF AMA DUES*

The office of the Secretary of the American Medical Association is receiving many questions concerning the payment of dues voted by the House of Delegates at its December 1949 meeting. Some of the questions and the answers offered by the Secretary's office are reproduced herewith for the information of *The Journal's* readers. . . .—Editor.

Question: *Does the American Medical Association require the payment of dues by its members?*

Answer: Yes. For the first time in its history, the members of the American Medical Association in 1950 will pay membership dues. These dues apply to all members of the Association except those in three specific categories.

Question: *What is the amount of the dues for 1950?*

Answer: $25.

Question: *What are the American Medical Association 1950 membership dues of a physician who joins his county medical society after July 1?*

Answer: Dues for physicians who become members after July 1, 1950, are $12.50. The dues for all members before July 1 are $25.

Question: *Does a member who transfers from one state or county to another pay American Medical Association membership dues a second time?*

Answer: No. A member pays his American Medical Association dues only once in a calendar year.

Question: *By what authority were the dues set at the $25 level?*

Answer: On recommendation of the Board of Trustees and approval by the House of Delegates in December 1949 in accordance with the provisions of the Constitution and By-laws of the American Medical Association.

Question: *What members are exempt from the payment of American Medical Association membership dues for the year 1950?*

Answer: (a) Members for whom the payment of dues constitutes a financial hardship as determined by their local medical societies.

(b) Members in actual hospital training for not more than five years after graduation from medical school.

(c) Members who have retired from active practice.

In all instances exemption may be allowed only if the member is also exempt from state and county medical society dues.

Question: *To whom should the American Medical Association membership dues be paid?*

Answer: To the local or state society, depending on the system of payment established by the state medical association concerned.

Question: *When should American Medical Association 1950 membership dues be paid?*

Answer: When the member receives his bill from his local or state society. No remittance of membership dues should be made directly to the American Medical Association.

Question: *What is the relation between American Medical Association membership dues and Fellowship dues?*

Answer: (a) The status of Fellowship and Fellowship dues has not been changed by the establishment of American Medical Association membership dues.

(b) Members may become Fellows—subject to approval by the Judicial Council—by requesting such status on a form supplied by the American Medical Association.

(c) Fellowship dues of $12 and membership dues of $25 are separate dues. *Members who are or who become Fellows, therefore, pay a total, combined Fellowship and membership dues, of $37.*

Fellowship dues include subscription to *The Journal of the American Medical Association* or to one of the special journals.

Question: *What is a Service Fellow?*

Answer: Commissioned medical officers of the Armed Forces and the United States Public Health Service and permanent medical officers of the Veterans' Administration may become Service Fellows of the American Medical Association on nomination by their chief medical officers and approval by the Judicial Council. Service Fellows are not required to pay Fellowship dues and do not receive any publication of the Association except by personal subscription.

Question: *Must a Service Fellow be also a member of the American Medical Association?*

Answer: No. Service Fellowship is a special category of Fellowship established for physicians in full time Government service, many of whom are not eligible for membership in their local medical societies. However, a Service Fellow who is a member of a local medical society may elect to pay American Medical Association dues for 1950 and thereby continue his membership in the American Medical Association.

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* Reprinted from J. A. M. A., 1950, **142**, 995.

QUESTION: *What action is taken when there is failure to pay American Medical Association membership dues?*

ANSWER: Members who are delinquent in the payment of American Medical Association dues for one year and who fail to pay such delinquent dues within 30 days after receipt of notification from the Secretary of the American Medical Association will forfeit membership in the American Medical Association. Retention of membership in the local and state medical societies under these circumstances will depend on the local action of those societies.

OBSTETRICAL BOARD REACTIVATED

The Executive Board of the Medical Society of the District of Columbia approved the reactivation of the Obstetrical Board at its September meeting, in accord with the request of the Subcommittee on Maternal Welfare. As reconstituted the Obstetrical Board consists of eight members. Drs. C. K. Fraser and Raymond T. Holden were appointed by the Executive Board to serve for three years with the recommendation that Dr. Fraser be appointed chairman and Dr. Holden co-chairman of the reconstituted Board.

Dr. Fraser has informed the Executive Board that the other organizations to be represented on the Obstetrical Board have selected their representatives. They are as follows:

Washington Gynecological Society: Dr. J. Bay Jacobs, who will serve as Secretary of the Board.
Georgetown University Medical Center: Dr. Andrew A. Marchetti
George Washington University School of Medicine: Dr. John Parks
Howard University School of Medicine: Dr. Thomas Simmons
District of Columbia Health Department: Dr. Ella Oppenheimer
Medico-Chirurgical Society, Inc.: Dr. Alvin Robinson

The Children's Bureau of the Federal Security Agency made no appointment. Dr. Edwin F. Daily, a member of the previous Board, states that in view of his long absence from clinical medicine he feels it would be inappropriate for him to resume membership on the Board. There is no one available on Dr. Daily's staff for appointment.

Fourteen Associate members have been appointed to the Board by their respective hospitals. They are:

Army Medical Center: Major Humbert Riva
Bolling Air Force Base, Station Hospital: Captain William Hernquist
Central Dispensary and Emergency Hospital: Dr. Rufus M. Roll
Columbia Hospital for Women: Dr. Preston Haynes
Doctors: Dr. Aaron Gerber
Eastern Dispensary and Casualty: Dr. Henry H. Canton
Freedmen's: Dr. Coleridge Gill
Gallinger Municipal: Dr. Robert H. Barter
Garfield Memorial: Dr. Howard P. Parker
Georgetown University: Dr. Stafford W. Hawken
George Washington University: Dr. George Nordlinger
National Homeopathic: Dr. Bernard Notes
Providence: Dr. George J. Ellis
Sibley Memorial: Dr. Morton S. Kaufman

Any physician who is interested in attending meetings of the Board will receive notices if he will write or phone the Executive Offices of the Society and request to be placed on the mailing list for such notices.

CORRESPONDENCE

WASHINGTON, D. C., March 3, 1950

MEMORANDUM TO: Physicians, Hospital Superintendents, Clinic Directors, and others concerned.
FROM: Daniel L. Seckinger, M.D., Health Officer.
SUBJECT: Reporting of Rat Bite Cases.

The Department of Health has been concerned for a number of years with the problem of rat-bite cases. When a person is bitten it is usually an indication of a heavy rat infestation on or near the premises.

The Communicable Disease Regulations of the District of Columbia require the reporting of instances of persons "bitten by a dog or other animal, which report shall include also the name, address, age, sex, and race of the person bitten" [Section 2 (e)].

Rat-bite cases that come to your notice should be reported by telephone, or mail if preferred, to:

Department of Health
Bureau of Public Health Engineering
300 Indiana Avenue, N.W.
Phone: NAtional 6000, Ext. 617

News and Personals

The 16th Annual Meeting of the American College of Chest Physicians will be held at the St. Francis Hotel, San Francisco, Calif., June 22–25.

The Board of Examiners of the College announces that the next oral and written examinations for Fellowship will be held in San Francisco, June 22. Candidates for Fellowship in the College who would like to take the examinations should write to the Executive Secretary of the College, 500 North Dearborn Street, Chicago 10, Illinois.

Dr. Edgar W. Davis is Governor of the College for the District of Columbia.

The American Society for the Study of Sterility will hold its Sixth Annual Conference at the Sir Francis Drake Hotel in San Francisco, Calif., June 24 and 25. This Society is composed of doctors engaged in various branches of medicine, both clinical and basic sciences, who are in one manner or another interested in the general over-all problem of reproduction. Registration fee for the two full-day sessions is $10.00. Further information will be supplied upon request by the Secretary-Treasurer, Dr. Walter W. Williams, 20 Magnolia Terrace, Springfield 3, Massachusetts.

Through the courtesy of the Ortho Research Foundation, an annual award of $1,000 is offered for the most outstanding basic contribution in the sphere of human infertility and sterility. Those desiring to qualify for the 1951 award should communicate promptly with the Secretary's office for further information and should advise the title of the paper to be submitted.

The Southeastern Surgical Congress closed its 18th Postgraduate Assembly at the Shoreham Hotel in Washington, March 9. Dr. R. J. Wilkinson, of Huntington, West Virginia, retiring President of the Congress, described the meeting as a "huge success." Much credit for the excellent meeting is due Dr. Harry Lee Claud, who, as General Chairman of the Committee on Arrangements, worked long and diligently to insure its success.

Four papers were contributed to the scientific program by Washington physicians: "Plastic Surgery of Interest to the General Surgeon," Dr. Claud; "Clinical Significance of Intrapulmonary Neoplasms," Dr. Edgar W. Davis; "Haemangio-sarcoma of the Stomach," Dr. Harry H. Kerr; and "Sigmoido-vesical Fistula: Diagnosis and Treatment," Dr. Charles S. White.

At special convocation exercises, March 8, Dr. B. T. Beasley, Secretary of the Congress, presented the Class of 1950 as candidates for fellowship. Fellowships were conferred upon members of the class by President Wilkinson, following which Dr. George F. Lull, Secretary and General Manager of the American Medical Association, gave the convocation address on "The Doctor's Responsibility in View of the Changing Times."

From the District of Columbia, Senior fellowship was conferred upon the following physicians: Drs. William W. Chase, Robert J. Coffey, John H. Lyons, William Ross Morris, George K. Nutting, Wendell A. Parker, Paul S. Putzki, H. H. Schoenfeld, J. Ross Veal and John Ogle Warfield, Jr.

Accepted as Junior fellows were Drs. Carlos A. Dominguez, William H. Ferguson, Charles S. White, Jr., and Edward C. Wilson.

Honorary fellowship was bestowed upon Major General H. G. Armstrong, M.C., U.S.A., Major General Malcolm C. Grow, M.C., U.S.A., Dr. Arthur C. Christie, and Dr. James F. Mitchell.

Elected to Associate fellowship from Washington were Drs. Ralph M. Caulk, Fred O. Coe, Aubrey O. Hampton, Oscar B. Hunter and Donald Stubbs.

Dr. C. C. Howard, of Glasgow, Ky., took office as the new President. Elected to office were: Dr. Joseph S. Stewart, Miami, Florida, President-elect, and Dr. J. Duffy Hancock, Louisville, Ky., Vice President. Dr. Beasley continues as Secretary-Treasurer.

On Tuesday, March 7, at the Chevy Chase Club Mrs. Claud gave a luncheon for the wives of officers of the Congress, her committee, members of the Auxiliary, and friends.

GP, the official organ of the **American Academy of General Practice,** made its debut early in April. The publication is a handsome one with an attractive cover, blue on white, a distinctive format, and an interesting use of color and illustration throughout. The Editorial Staff, headed by Dr. Walter Alvarez, and the Managing Publisher, Mac F. Cahal, who is also Executive Secretary of the Academy, are to be commended for a meritorious addition to the list of medical publications.

The masthead of the April issue carries the name of the late Dr. F. Kenneth Albrecht as Editor. Dr. Albrecht died in an automobile accident in March and Dr. Walter Alvarez, Senior Consultant in the Division of Medicine in the Mayo Clinic, was appointed Medical Editor of *GP* to succeed him.

Dr. Alvarez is a widely known author and medical lecturer. Since 1926 he has been associated with the Mayo Clinic in Rochester, Minn.; he has held the position of Professor of Medicine of the Mayo Foundation of the University of Minnesota since 1934. He has served as editor on both the *American Journal of Digestive Diseases* and *Gastroenterology*. He has been contributing author to several important books and is credited with more than 650 articles in the medical literature throughout the country. Having reached the age of retirement at the Mayo Foundation, he is moving to Chicago, where he will assume the duties of Medical Editor of *GP*.

The Editorial Advisory Board is composed of distinguished physician-specialists representing all sections of the United States. From the District of Columbia are Dr. Harold Jeghers (General Medicine), Dr. Thomas McPherson Brown (Rheumatic Disorders and Arthritis), Dr. Wallace M. Yater (Cardiology), and Dr. Harry F. Dowling (Chemotherapy, Antibiotics and Infectious Diseases).

The journal is published by the Academy's headquarters office in Kansas City, Mo., Broadway at 34th Street. The first issue was mailed to 12,000 members of the Academy and other subscribers.

The American Academy of Neurology held its First Interim Meeting at the Netherlands Plaza Hotel in Cincinnati, April 14 and 15. Dr. Pearce Bailey is President-elect of this organization.

The Academy is announcing the publication of the *American Journal of Clinical Neurology*, which will be the official organ of the Academy. It is the only journal published in the United States which is devoted exclusively to neurology. Dr. Webb Haymaker, neuropathologist with the Armed Forces Institute of Pathology, is Associate Editor of the *Journal*. Those who are interested in becoming charter subscribers are invited to address the *Journal*, 84 South 10th Street, Minneapolis 3, Minn.

In furtherance of better relations between the legal and medical professions, the **Bar Association of the District of Columbia** entertained a group of officers and members of the District of Columbia Medical Society at dinner at the Mayflower Hotel, April 11. Present from the Society were: Dr. Walter Freeman, President; Dr. Samuel M. Dodek, Vice President; Dr. William Earl Clark, Chairman of the Executive Board; Mr. Theodore Wiprud, Secretary; Dr. James A. Gannon, who suggested that joint meetings with the Bar Association would be mutually beneficial; and the following members of the Society's Committee on Coöperation with the D. C. Bar Association: Drs. John M. Baber, Irving Burka, Aubrey D. Fischer, Philip Litvin and Philip O. Pelland.

Following the dinner members of the Society were invited to attend the regular meeting, during which two legal films were shown. Presiding at the meeting was John L. Laskey, President of the Bar Association. James D. Mann is Executive Secretary of the Association.

At the annual meeting of the **Board of Trustees of Group Hospitalization, Inc.,** March 24, Jospeh H. Himes, one of the founders of the organization, was reëlected President for the 17th year. Others reelected to office were Alfred G. Neal, First Vice President; Charles D. Drayton, Second Vice President; and Dr. Walter A. Bloedorn, Secretary. Bruce Baird, President of the National Savings and Trust Company, was named Treasurer, succeeding Sidney F. Taliaferro, who had served in this office since the organization was set up in 1934.

John M. Littlepage, Vice President of Episcopal Eye, Ear and Throat Hospital, was appointed by the contracting hospitals to succeed Mr. Taliaferro as a trustee. Brigadier General Frank T. Hines, retired, was reappointed to the Board by the District Commissioners. Frank R. Jelleff was renamed by the District Medical Society.

President Himes reported that as of February 1 participants covered under GHI numbered more than 431,000 and the plan ranked third in the country in percentage of population covered. In 1949 payments to hospitals amounted to more than $4,200,000, compared with $3,000,000 in 1948.

The first Northern Virginia Clinical Assembly was held on April 16 in the Ficklin Elementary School auditorium in Alexandria. Three members of the District Medical Society took part in the program. Dr. Custis Lee Hall, of George Washington University School of Medicine, presented a paper on "Immediate Treatment of Fractures" as the opening scientific paper. Dr. Robert J. Coffey, of Georgetown University School of Medicine, spoke on "Acute Surgery of the Abdomen," and following his address Dr. Harvey J. Tompkins, Chief of the Division of Psychiatry and Neurology of the Veterans Administration, discussed "Psychiatric Emergencies and What the Medical Man Can Do."

Other speakers were Dr. Theodore E. Woodward and Dr. J. Mason Hundley, Jr., of Maryland University, Dr. Alexander J. Schaffer and Dr. Sidney Scherelis of Johns Hopkins University, and Dr. J. Edward Berk of Temple University.

The Jacobi Society held its annual banquet at the Shoreham Hotel, March 20, with about 300 members and guests in attendance.

Dr. Milton Greenberg, President of the Society, presided during the program which followed the dinner. Dr. Joseph S. Wall gave some personal reminiscences of Dr. Abraham Jacobi, for whom the Society is named. The guest speaker of the evening was Dr. George Baehr, Medical Director of the Health Insurance Plan of Greater New York; "A Forecast of Changes in Medical Practice" was the subject of his address.

Life membership in the Society was conferred upon Drs. Joseph Harris and Lester Neuman.

Among the honored guests present for the occasion were Dr. Richard L. Meiling, of the office of Secretary of Defense; Major General Raymond W. Bliss, Surgeon General of the Army; Captain Joseph L. Schwartz, M.C., U. S. N., representing the Navy; Major General Harry Armstrong, Surgeon General of the Air Force; Dr. Palmer Deering, Deputy Surgeon General of the Public Health Service; Dr.

Calendar of Meetings

March 16	Committee on Medical Care
	Section on Radiology
March 17	Committee on Emergency Medical Service
March 20	Obstetrical Board
March 21	Membership Luncheon
March 22	Scientific Meeting of Society
	Committee on Physicians Relations, Medical Service
March 23	Board of Directors, Diabetes Association of D. C.
	Deans of Medical Schools
March 24	Medical Committee on Civil Defense
March 27	Executive Board
March 28	Membership Luncheon
	Medical Officers' Reserve Units
March 31	Grievance Committee
April 3	Public Speaking Course
April 4	Registered X-ray Technicians of Washington
	Lay Society, Diabetes Association of D. C.
April 5	Clinical Society, Diabetes Association of D. C.
	American Medical Technologists
April 6	Woman's Auxiliary
	Section on Neurology and Psychiatry
	Executive Committee, Gallinger Hospital
	Health Section, United Community Services
April 8	Washington Psychoanalytic Society
April 10	Public Speaking Course
April 11	Membership Luncheon
	Medical Officers' Reserve Units
April 12	Scientific Meeting of Society
	Woman's Auxiliary
	Board of Trustees, Medical Service
April 13	Grievance Committee
	Special Committee on Child Health Survey
	Program Committee, Annual Scientific Assembly
	Washington Heart Association
April 14	Subcommittee on Child Welfare
	Ladies Entertainment Committee, American Urological Association
April 15	Washington School of Psychiatry

Walter A. Bloedorn, Dean of George Washington University School of Medicine; The Reverend Paul A. McNally, Dean of Georgetown University School of Medicine; Dr. Walter Freeman and Theodore Wiprud, President and Secretary, respectively, of the District Medical Society; Dr. James F. Mitchell, former Chief of Staff of Emergency Hospital; and Dr. Daniel L. Seckinger, District Health Officer.

The American Therapeutic Society held its 51st Annual Meeting in Boston, April 13–16, at the Copley Plaza Hotel. Drs. Jacob J. Weinstein and Wallace M. Yater contributed papers for the scientific program. Dr. Weinstein's paper was entitled, "Parenteral Therapy with Invert Sugar," and Dr. Yater's, "The Treatment of Carcinoma of the Rectum."

Members of the District Medical Society are reminded that **bonds are now on sale** to members only at the Executive Offices, the proceeds of which will be used to acquire the property at 1720 M Street, N.W. The bonds, dated June 1, 1950, will bear 3 per cent interest for a 10-year period. They may be purchased in denominations of $50 and multiples thereof. Order blanks have been mailed to all members.

The Section on Neurology and Psychiatry sponsored the scientific program of the District Medical Society on April 12. Dr. Frank B. Walsh, Professor of Ophthalmology, Johns Hopkins University, Baltimore, was the guest speaker. The subject of his paper was "Ocular Signs of Congenital Aneurysms."

The Section on Otolaryngology held its fourth meeting of the season on March 21 at the Army-Navy Town Club. Dr. Lawrence L. Robbins of the Massachusetts General Hospital, Boston, presented a paper on "Dangers of Irradiation to the Nasopharynx." His paper was discussed by Dr. Donald F. Proctor of Johns Hopkins Hospital, Baltimore.

The annual meeting of the **Virginia Tuberculosis Association** was held in Alexandria, Va., April 21 and 22, with headquarters at the George Mason Hotel. The Alexandria Tuberculosis Association was host to the state organization. Among those who took part in the program wer Dr. James E. Perkins, Secretary of the National Tuberculosis Association; Dr. Herbert R. Edwards, Executive Secretary of the New York Tuberculosis Association; Edward K. Funkhouser, Executive Secretary of the D. C. Tuberculosis Association; and Dr. Arthur C. Christie, Washington radiologist.

Dr. Thomas Bradley was host to the **Osler Society,** April 17. Dr. Theodore Abernethy read a paper on "The 'Q' Fever Saga"; Dr. William Howard presented a case report on "Food Allergy."

The Washington and Baltimore Ophthalmological Societies held a joint meeting in Baltimore, March 23, at the Stafford Hotel. The speaker of the evening was Dr. Harold Scheie, and his subject, "Congenital Glaucoma."

The Women's Medical Society held a joint meeting with the Women's Bar Association, April 18, when the topic for discussion was "Some Legal Problems."

The George Washington University General Alumni Association has elected Dr. Elmer Louis Kayser, Dean of University Students and Senior Professor of History of the University, President for 1950. Also elected were nine Vice Presidents representing alumni of various schools. Among these were Dr. H. J. Russell McNitt, for the School of Medicine; Harold C. Kinner, of Kinner and Membert, for the School of Pharmacy; and Dr. C. Willard Camalier, for the Dental School.

At the annual meeting of the Board of Directors of the **Diabetes Association of the District of Columbia, Inc.,** March 23, the following officers were elected:

Dr. Maurice Protas, *President*; Dr. E. Clarence Rice, *First Vice President*; Dr. Joseph Roe, *Second Vice President*; Dr. K. Hammond Mish, *Secretary-Treasurer.*

The Metropolitan Washington Tuberculosis Conference held its spring meeting, March 22, in the Federal Security Building. Among those who addressed the Conference were Dr. Monroe J. Romansky, Associate Professor of Medicine at George Washington University School of Medicine; District Health Officer Daniel L. Seckinger; and Dr. Charles P. Cake, Chief of the Tuberculosis Unit of Veterans Administration Regional Office.

The 1950 Kober Lecturer was **Dr. Brian B. Blades,** who had been selected for this honor, in accord with the provisions of the founder, by the Executive Board of the Medical Society of the District of Columbia. His address, given at Gaston Hall of Georgetown University, March 28, was entitled, "Observation on Protective Measures in Experimental Coronary Artery Occlusion."

Dr. Blades is Professor of Surgery at George Washington University School of Medicine. He graduated in medicine from Washington University (St. Louis) in 1932 and served on the faculty of this institution as Instructor in Surgery and as Assistant Professor of Clinical Surgery. He was stationed at Walter Reed General Hospital during World War II, from 1942 to 1946, when he retired to civilian practice with the rank of Colonel. In recognition of his outstanding war service he was awarded the Legion of Merit, the American Campaign Medal, and the World War II Victory Medal.

He is a diplomate of the American Board of Surgery, a Fellow of the American College of Surgeons, the American College of Chest Physicians, and the American Medical Association, and a member of numerous other surgical and scientific societies. His special interest is thoracic surgery.

Dr. Don S. Knowlton, who has held the rank of Commodore in the United States Naval Reserve, has been advanced on the retired roles of the Navy to the grade of Rear Admiral. Dr. Knowlton gained this promotion as a result of an award received in combat during World War II.

In World War I he served with the American Expeditionary Forces, and in the 1920's with the Organized Reserve Corps. He was commissioned in the Naval Reserve in 1930.

During World War II Dr. Knowlton received a Legion of Merit for outstanding service as Executive Officer of the first medical battalion during the seizure and occupation of Guadalcanal. Later he was to receive a Gold Star in lieu of a second Legion of Merit for duty as division surgeon of a Marine infantry division during the planning for and conduct of operations against the enemy on Okinawa. In addition, he has been awarded the Purple Heart, a Secretary of the Navy Letter of Commendation, and is entitled to wear the Presidential Unit Citation with two stars.

Dr. Knowlton is on the medical staffs of Georgetown University, Episcopal and Doctors Hospitals. He is Associate Professor in Otorhinolaryngology at Georgetown University School of Medicine.

Only one other physician holds the rank of Rear Admiral in the Medical Corps of the U. S. Naval Reserve, Dr. Winchell M. Craig of the Mayo Clinic, Rochester, Minn.

Dr. Murray M. Copeland, Professor of Oncology at Georgetown University School of Medicine, and Director of the Department of Oncology at Georgetown University Hospital, was awarded the Legion of Merit by the President of the United States "for exceptionally meritorious service" from July, 1942 to May, 1944.

The presentation was made on March 15 by Major General Charles F. Thompson, U. S. A., retired, who was Dr. Copeland's Commanding General in the South Pacific during the War.

Dr. Copeland served in the South Pacific theatre for three years, beginning in 1942, with the 142nd General Hospital. He served as Assistant Base Surgeon, later being made Commanding Officer of the 142nd with the grade of Colonel. He continued in this capacity until his return to the United States, where he was appointed Chief of Surgery at Valley Forge General Hospital, Valley Forge, Pa. Following the cessation of hostilities he returned to inactive status.

Following the presentation of the award a reception was held in the Faculty Lounge. Among those in attendance were Major General Raymond L. Bliss, Surgeon General of the U. S. Army; Rear Admiral H. L. Pugh, Assistant Surgeon General, U. S. Navy; Dr. John R. Heller, Director of the National Cancer Institute; Dr. Austin V. Diebert, Chief of Cancer Control Branch, National Cancer Institute; Dr. Paul B. Magnuson, Chief Medical Director, Bureau of Medicine and Surgery, Veterans Administration; and Theodore Wiprud, Secretary of the District Medical Society.

Dr. Harry H. Kerr, Past President and co-founder of the District Division of the American Cancer Society, received national recognition for his work in cancer control, March 9, when he was awarded the St. George medal of bronze by Walter S. Pratt, Jr., President of the local Division, on behalf of the national society. The St. George medal, which bears the image of St. George and the dragon, is awarded for "distinguished service in cancer control."

During presentation ceremonies at the Willard Hotel, Dr. Murray M. Copeland and Mr. Eliot Wadsworth gave brief talks.

Dr. Edward J. Stieglitz fulfilled a number of speaking engagements in and out of Washington during the first three months of 1950.

On January 24 and 25 he was in Chicago at the request of the Veterans Administration, lecturing and teaching ward rounds at Hinds Hospital and Downey Hospital. On January 24 he also lectured on "Health Reserves in Later Maturity" at the University of Chicago. He returned to Chicago on March 3 to address a joint meeting of the Federation Council of Churches of Christ in America and the Protestant Hospital Association. His subject was "When Should Parents Leave Home?"

Dr. Stieglitz was in New York City, February 6 and 21. On the 6th, he addressed the Macy Foundation Research Conference on Aging on "The Relation of Geriatric Medicine to Experimental Gerontology." On the 21st he attended the AMA's Tenth Annual Congress on Industrial Health and presented a paper on "Responsibilities of Industrial Medicine in Gerontology."

He gave a lecture before the Johns Hopkins University Medical School, March 22, on "Sociologic Gerontology."

Among speaking engagements in Washington was a lecture, February 9, on "Orientation of Geriatric Medicine" before the Georgetown University Medical School Alumni.

The Nation's annual Cancer Drive was launched at Constitution Hall, April 4, with Hollywood and Broadway stars participating in the entertainment. The slogan for the campaign is "Give to Conquer Cancer—Strike Back." Among the speakers on the program were Dr. Charles S. Cameron, Medical and Scientific Director of the American Cancer Society, and Walter S. Pratt, Jr., President of the District Division of the Society. The District Division expects to raise $200,000 as its quota of the national goal of $14,565,000. Charles C. Koones is local Chairman of the Cancer Drive.

Sir Alexander Fleming was in Washington for three days, March 28, 29 and 30, en route to Roanoke, Virginia. During his stay in Washington he visited the Food and Drug Administration, the Naval Medical Center in Bethesda, Md., and George Washington University Hospital and School of Medicine. At the last two institutions he was the guest of Dr. Monroe J. Romansky, Associate Professor of Medicine, whose development of an oil-beeswax suspension was one of the important steps in prolonging the effects of penicillin in humans.

Sir Alexander expressed considerable interest in the work in antibiotics which was in process, particularly the use of combinations of antibiotics and their synergistic action.

The District Medical Society's **Committee on Public Relations** is sponsoring a **public speaking course and orientation sessions** in the Library of the Society's building. The course began on Monday, April 3, and will continue for ten sessions of one hour each. The instructor is Mr. L. Poe Leggette, Executive Officer of the Department of Speech, George Washington University. The registration fee for the course is $25.00.

The orientation sessions are conducted in connection with the public speaking course for the purpose of briefing physicians who volunteer to speak to lay audiences on the social and economic aspects of medicine. It is not necessary to enroll for the public speaking course to attend the orientation sessions.

Dr. Henry A. Grennan and Dr. William T. Gibb are Chairman and Vice Chairman, respectively, of the Committee on Public Relations. Dr. James A. O'Keeffe was chairman of a special subcommittee which developed the public speaking course.

The Women's Auxiliary to the Medical Society of the District of Columbia held its annual dinner dance in the Terrace Room of the Shoreham Hotel, April 11; about 200 members and guests enjoyed the dinner and dancing.

Assisting Mrs. Francis J. O'Bryan, who was Chairman of the Committee on Arrangements, were Mmes. Alan F. Kreglow, Stafford W. Hawken, Lawrence M. Drennan, John E. Morris, Jerome A. Sansoucy and George J. Stuart.

Fifteen Washington leaders in education, medicine, law, protection and religion were invited by WTOP's reporter, Joe Wershba, to discuss "Sex Offenses in Washington" over WTOP, April 11, from 10:30 to 11:00 p.m. Two members of the District Medical Society were included in this group, **Dr. Winfred Overholser** and **Dr. Benjamin Karpman.**

Seven staff members from **Children's Hospital** furnished a scientific exhibit for the regional meeting of the American Academy of Pediatrics which was held in Philadelphia, March 30, 31 and April 1. The exhibit covered three subjects: (1) "Pediatric Use of Chloromycetin," (2) "Splenectomy in Sickle-cell Anemia and Other Blood Dyscrasias," and (3) "Meningitis due to Multiple Bacterial Infections."

The exhibit was prepared by Drs. Sidney Ross, Frederick G. Burke, John Washington, E. Clarence Rice, Edwin Vaden, George Maksim and Adrian Recinos.

The new Bulletin of the **George Washington University School of Medicine** for 1950–51 lists for the first time the following two awards:

Anna Bartsch Scholarship.—This scholarship, in the amount of $500, established in 1946 by Dr. Anna Bartsch-Dunne as a memorial to her mother, Anna Bartsch, is awarded annually to a woman in the School of Medicine "of outstanding scholarship, character, and promise, who intends to make the practice of medicine her life profession."

Anna Bartsch Internship.—In memory of her mother, Anna Bartsch, Dr. Anna Bartsch-Dunne established in 1946 a fund to aid in the support of an internship. This aid, in the amount of $15 a month, is awarded annually to a woman holding an internship in the University Hospital.

Dr. Anna Bartsch-Dunne, gynecologist and an Active member of the District Medical Society, is a graduate of Howard University School of Medicine and was a member of its faculty from 1903 to 1908 and again from 1916 to 1933. She was clinician at the Women's Clinic from 1903 to 1908 and President of the Women's Medical Society, 1936–38.

Dr. Alfred A. J. Den was elected Permanent Secretary to the Eastern Conference of Radiologists during its recent meeting at the Hotel Statler in Boston, March 3 and 4. Host for the Conference was the New England Roentgen Ray Society. Other Washington physicians in attendance were Drs. Aubrey O. Hampton, Willy E. Baensch, Eugene J. McDonald, James E. Wissler, Ralph M. Caulk, Karl C. Corley, Joseph F. Belair, U. V. Wilcox II, and George M. Wyatt.

The 1951 Conference will be held in Baltimore at the Johns Hopkins University early in March. The host will be the Maryland General Hospital.

Several members of the District Medical Society participated in the **Regional Meeting of the American College of Physicians** in Baltimore, March 25. The following papers were presented: "Current Trends in the Use of Chemotherapeutic Agents and Antibiotics in Pulmonary Tuberculosis," Drs. Monroe J. Romansky and Sol Katz; "Adrenal Insufficiency in Childhood with Characteristic Electrocardiographic Changes," Dr. Laurence Kyle; and "Insulin Insensitivity in Diabetes Mellitus: Implications and Approaches to Management," Drs. Hyman Zimmerman and Alvin E. Parrish.

Dr. Lloyd H. Mousel has moved to Seattle, Washington, where, on April 1, he took over his new duties as Chief of Anesthesiology and the Operating Room Section of the Swedish General Hospital. Dr. Mousel was Professor of Anesthesiology of George Washington University Medical School and Associate in Anesthesiology of the University and Gallinger Hospitals. He joined the University staff in 1946.

Dr. Winfred Overholser, Superintendent of St. Elizabeths Hospital, and **Dr. Leonard Scheele,** Surgeon General of PHS, were among the guest speakers at the Conference on Public Health sponsored by the University of West Virginia in Morgantown, March 31 and April 1. Dr. Scheele was the banquet speaker on March 31. Dr. Overholser, who commented on the unusual excellence of this meeting, addressed the Conference on "Mental Hygiene in the Field of Public Health."

Dr. Scheele attended the 27th Annual Meeting of the New England Hospital Association in Boston, March 28, and addressed the meeting on the need for better integration of medical and hospital services under prepayment health insurance.

Dr. Anthony Zappala, of the staff of St. Elizabeths Hospital, has been appointed Assistant Director of the alcoholic rehabilitation program of the District of Columbia. He will aid Dr. Leopold E. Wexberg at the Alcoholic Clinic at 23rd and M Streets, N.W.

Dr. Zappala received his medical degree from Georgetown University. After interning at Providence Hospital he became medical officer in psychiatry at St. Elizabeths Hospital. He served as psychiatric medical officer during World War II from July, 1943 to February, 1946.

Dr. Inez E. Wilber, ophthalmologist, was elected President of the Zonta Club, March 29, at a luncheon meeting in the Roger Smith Hotel. Dr. Wilber was one of the organizers of the School Eye Clinic of Washington. She is also Chairman of the Health and Safety Committee of the District Business and Professional Women's Club.

Theodore Wiprud, Secretary of the District Medical Society, was invited to participate again in the Seminar on Medical and Public Health Economics for senior medical students at Howard University School of Medicine, which was held on eight successive Tuesdays beginning March 28.

Mr. Wiprud presented the first two lectures on "Business Aspects of Medical Practice." Others who appeared on the program were Mr. David Klein, of the Brem and Klein Agency; Mr. Melvin Dollar, Executive Secretary of Group Health Association; Dr. Michael M. Davis, of the Committee for the Nation's Health; and Dr. Milton Terris.

Dr. Joseph S. Lawrence, Director of the Washington Office of the AMA, addressed the Middle Atlantic States Regional Conference in Philadelphia, April 6, on "Washington Horoscope." The meeting was held in the auditorium of the Philadelphia County Medical Society.

Dr. William J. Tobin, Associate Professor of Orthopedic Surgery at Georgetown University School of Medicine, participated in the Staff Conference of the Veterans Administration Hospital in Puerto Rico, February 20 and 21. He delivered two lectures, "Tendon Injuries and Compound Fractures" and "The Painful Shoulder." During his visit he was also invited to address the San Juan Medical Association, where he spoke on "The Treatment of Non-union of Fractures."

Dr. John P. Gallagher attended the 62nd Annual Meeting of the American Association of Railway Surgeons in Chicago, April 4–6. On the opening day he presented a paper entitled "Compound Fracture of the Skull."

Dr. F. Daniel Suttenfield will participate in the program of the Seventh Annual Convention of the American Geriatric Society, which is meeting in New York, June 1, 2 and 3, 1950. During the convention he will present a paper on "Gout: Early Clinical Diagnosis and Management."

Dr. Walter A. Wells was invited to address the Section on the History of Medicine of the Richmond Academy of Medicine, February 14. His subject was "John Keats, Student of Medicine: His Teachers and Fellow Students at Guy's Hospital."

Dr. Julius S. Neviaser was elected the first President of the Orthopedic Alumni Association of the Hospital for Joint Diseases in New York, February 14. The Association consists of about 150 orthopedists who were part of the General Alumni group before they decided to set up their own organization.

Dr. Wallace M. Yater was guest speaker at a conjoint meeting of the Philadelphia Heart Association and the Philadelphia College of Physicians in Philadelphia, April 24.

Dr. J. DeWitt Fox, Editor of *Life and Health* magazine, has been elected to membership in the National Press Club, the first physician to hold active membership in the Club during its 41 years of existence. Dr. Fox is an Active member of the District Medical Society.

Dr. William F. Burdick appeared on the program of the U. S. Naval Hospital Staff Conference, April 14, in Bethesda, Md. He was one of four participants in a Symposium on Acute Laryngotracheobronchitis.

Dr. Benjamin Karpman lectured on "Sexual Psychopathy" before the William Beaumont Medical Society of George Washington University School of Medicine, March 13.

Dr. Jacob J. Weinstein addressed the Frederick County Medical Society, March 21, on "Nutritional Management of Burns."

Dr. Laurence H. Kyle spoke before the District of Columbia Society of Medical Technologists at the Statler Hotel, March 25, on "The Clinical Aspects of ACTH." His address was part of a panel discussion on ACTH.

Staff members of Freedmen's Hospital and Howard University School of Medicine mourn the death of **Dr. Charles R. Drew,** who was killed in an automobile accident, April 1, 1950, near Burlington, N. C. Dr. Drew, who was Chief Surgeon at Freedmen's, was en route to a medical meeting at Tuskegee Institute, in Tuskegee, Alabama, with three other hospital staff members when the fatal accident occurred.

Dr. Drew received his medical degree from McGill University in Montreal, Canada, in 1933. He was appointed to the staff of Howard University in 1935; at the time of his death he was Professor of Surgery.

In 1938 he was awarded a Rockefeller Fellowship in Surgery at Columbia University, from which institution he received the degree of Doctor of Science in 1940. Early in World War II, as Director of the Blood Plasma Division of the Transfusion Association, he organized the first program under which blood plasma was sent to England. In 1943, for his services during the War, he was awarded the Spingarn Medal "for the highest and noblest achievement by an American Negro."

A member of the American Board of Surgery since 1940, he became the first Negro examiner on the Board two years later. He was Chief of the Surgical Section of the National Medical Association. He held two honorary degrees of Doctor of Science, one from Amherst College and the other from Virginia State College.

Associates and friends of Dr. Drew are completing plans to incorporate the Charles R. Drew Memorial Foundation, Inc., to continue his research projects. The Foundation also plans to purchase a home for the deceased physician's family, which consists of his wife, Mrs. Lenore R. Drew, and four small children.

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, headed by Dr. Henry A. Grennan, through which requests for speakers for lay groups are filled.

Date	*Speaker*	*Subject or Tile*	*Organization*
March 9	Dr. Samuel M. Becker	Courtroom Presentation of Medical Evidence in Personal Injury Cases	Claims Adjusters Association of Washington
March 27	Dr. Preston A. McLendon	General Health	John Quincy Adams Parent-Teachers Association
March 28	Dr. Herbert P. Ramsey	Socioeconomic Needs	Takoma Park Home-School Association
March 28	Dr. Cyril A. Schulman	Home Care Department of the Warwick Clinic	Broadcast over WQQW
April 10	Dr. Wolcott L. Etienne	Disadvantages of Socialized Medicine	Berwyn District Civic Association
April 11	Dr. Robert P. Odenwald	Elementary School Child	St. Hugh's Parents' Guild
April 11	Dr. Walter Stokes	Physical and Medical Preparation for Marriage	Jewish Community Center
April 25	Dr. Dorothy Donley-Dowd	Relationship of Home, School and Child; Childhood Problems	Lafayette Home and School Association, Chevy Chase, Md.

BOOK REVIEWS

Treatment of Heart Disease. William A. Brams, M.S., M.D., Ph.D., Associate Professor of Medicine, Northwestern University Medical School, and Attending Physician, Michael Reese Hospital, Chicago. Price, $3.50. Pp. 195, with 11 figures. Philadelphia: Saunders, 1948.

The author states that his object is to present a practical guide in the treatment of heart disease for the general practitioner and medical student. It is difficult to understand how these two groups should be attracted to a single volume of this type. Whereas the general practitioner frequently needs a quick reference, medical students are called upon to study the minute details both from an academic and practical standpoint. The reviewer has been unable to find any presentation in this book which has not already been done as well or better in current textbooks of medicine and pharmacology. Among some of the defects are: inadequate discussion and comparisons of the purified digitalis glucosides, overemphasis of bed rest in congestive heart failure, and that the use of anticoagulants in pulmonary embolism is still a matter of debate. Although the treatment of heart disease during pregnancy is discussed, no method of evaluation of the risk in the patient with heart disease before pregnancy occurs is mentioned.

J. M. B.

Diseases of the Heart. Charles K. Friedberg, M.D., Associate Physician, Mt. Sinai Hospital, New York; Lecturer in Medicine, Columbia University. Price, $11.50. Pp. 1081, with 79 figures. Philadelphia: Saunders, 1949.

This excellent book presents in a very readable manner all of the current facts and theories concerning the broad subject of heart disease. It is interestingly arranged in six sections dealing with (1) cardiac function, (2) disturbances in rate and rhythm, (3) disturbances of the blood supply to the heart, (4) structural abnormalities, (5) etiologic forms of heart disease, and (6) special problems in heart disease. Each section is further subdivided into a variable number of chapters. There are, for example, in Section I, ten chapters on heart failure and in Section V there are three chapters on rheumatic heart disease. In Section VI there are chapters on pregnancy and heart disease, surgical procedures in the cardiac patient, and insurance and medico-legal problems in cardiac disease. It is a very complete and most modern work on the subject, containing data on anticoagulants in coronary thrombosis, ACTH and cortisone in rheumatic fever, surgery in angina pectoris, cardiac catheterization, etc.

There is an excellent bibliography with all references keyed directly to the text. The text is amply illustrated with diagrams, reproductions of electrocardiograms and chest X-rays.

The practitioner of medicine will find this a most thorough working guide on the heart as well as a very useful reference source.

S. Z.

Clinical Auscultation of the Heart. Samuel A. Levine, M.D., Clinical Professor of Medicine, Harvard Medical School Physician, Peter Bent Brigham Hospital, and W. Proctor Harvey, M.D., Research Fellow in Medicine, Harvard Medical School Assistant in Medicine, Peter Bent Brigham Hospital. Price, $6.50. Pp. 327, with 286 figures. Philadelphia: Saunders, 1949.

The stated purpose of the authors of this fine book is to illustrate and to impress the reader of the immense value of auscultation in the physical diagnosis of the heart. They have, in effect, proved that the stethoscope is the most important instrument in diagnostic cardiology.

The discussions cover normal and abnormal heart sounds, cardiac murmurs, and miscellaneous auscultatory findings. These are extremely complete. There are many so-called "pearls" in differential diagnosis. Some of these should be well known but are often neglected. The book is replete with reproductions of phonocardiograms which clearly illustrate each condition.

This book should be of great value to student, internist and cardiologist. It is most highly recommended to all.

J. M. B.

How to Become a Doctor. George R. Moon, A.B., M.A., Examiner and Recorder, University of Illinois Colleges of Medicine, Dentistry and Pharmacy. Price, $2.00. Pp. 131, illustrated. Philadelphia: Blakiston, 1949.

This is a thought-provoking book, concisely written, which can be commended to, and read with profit by, every young man or woman who wants "to become a doctor." It takes the student as he leaves high school and points out to him all the hurdles which lie between him and a medical career. The book is realistic; though it uses the friendly approach of a sympathetic vocational adviser, it neither encourages nor discourages unduly the young medical school aspirant. For some students the hurdles are insurmountable, but the author feels it best that these be known before the student chooses his profession rather than after he has gone part-way on a course which can only lead to disappointment.

Full of concrete information, the book lists tuition fees, cost of books and equipment, and opportunities for scholarships and loans, along with how to apply for admission, sample questions from medical college admission tests, and the proper approach to the interview which will determine the success of his candidacy.

The chapter, Selecting a Medical School, lists all the approved four-year medical schools in the United States, giving the year each was founded, how supported, the minimum admission requirements, tuition, and the usual size of the first-year class.

For the student who finds himself barred from a medical career (and the obstacles are many) there are interesting and highly remunerative positions in allied fields. The author devotes a chapter each to dentistry and pharmacy. The final chapter touches on the possibilities for satisfaction and financial return offered by such professions as veterinary medicine, osteopathy, optometry, chiropody and foot surgery, nursing, medical illustration, occupational therapy, and hospital administration.

In the Foreword, Dr. A. C. Ivy, Vice President of the University of Illinois, states that Mr. Moon is eminently qualified to provide this information since he has been affiliated with medical, dental and pharmaceutical schools for 20 years as registrar, member of admissions committees, and in other capacities. He says, "It is probable that no one person in the world has met more students seeking advice regarding entrance to schools of medicine, dentistry and pharmacy."

A. L. E.

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interests of our readers and as space permits. Physicians are urged to submit reviews of additional current books which, in their opinion, merit comment.

Postgraduate Gastroenterology—As Presented in a Course Given under the Sponsorship of The American College of Physicians in Philadelphia, December 1948, edited by HENRY L. BOCKUS, M.D., Professor of Gastroenterology, University of Pennsylvania Graduate School of Medicine. Price, $10.00. Pp. 670, with 258 figures. Philadelphia: Saunders, 1950.

Current Therapy 1950—Latest Approved Methods of Treatment for the Practicing Physician, edited by HOWARD F. CONN, M.D. Consulting Editors: M. Edward Davis, Vincent J. Derbes, Garfield G. Duncan, Hugh J. Jewett, William J. Kerr, Perrin H. Long, H. Houston Merritt, Paul A. O'Leary, Walter L. Palmer, Hobart A. Reimann, Cyrus C. Sturgis, Robert H. Williams. Price, $10.00 Pp. 736. Philadelphia: Saunders, 1950.

Handbook of Obstetrics and Diagnostic Gynecology. LEO DOYLE, M.S., M.D. Illustrated by Ralph Sweet. Price, $2.00. Pp. 240. Palo Alto, Calif.: University Medical Publishers, 1950.

MEMBERSHIP

The following applicants for membership were duly elected to membership at the meeting of the Executive Board, March 27, 1950, in accord with Amendment XI, Section 2, of the Constitution and By-laws of the Society.

Active Members

Aris Carpousis, 3500 Garfield Street, N.W.
John W. DuChez, 2015 R Street, N.W.
James E. Fitzgerald, 5506 Center Street, Chevy Chase, Md.
Peter N. Horvath, 1726 Eye Street, N.W.
Seymour Itscoitz, 2412 Minnesota Avenue, S.E.
Beryl Conklin Kester, 3100-20th Street, N.E.

Associate Members

J. Gordon Lee, 2650 Wisconsin Avenue, N.W.
Ernest A. Sarao, 6711 New Hampshire Avenue, Takoma Park, Md.
John E. Schneider, D.D.S., 2735 Connecticut Avenue, N.W.

Resident-Intern Members

Edward James Carry, Providence Hospital
Elbert T. Phelps, 122 Ridge Road, S.E.

The following applicants for membership will be voted on at the meeting of the Executive Board, June 26, 1950:

For Active Membership

James D. Carter, Cornell University—1940
Aram Glorig, Jr., College of Medical Evangelists—1937
Elizabeth Harman Hill, University of Virginia—1943
Don D. Jackson, Stanford University—1943
Charles Henry Nash, Jr., University of Texas—1942
Angel E. Salazar, Georgetown University—1948
Marshall C. Sanford, Johns Hopkins University—1942

For Associate Membership

Dorothy Gill, Washington University—1938
George A. Hardie, University of Virginia—1941

For Affiliate Membership

Wallace E. Baker, University of Nebraska—1940

CAT.

Henry Richard Schreiber, M.D.

HENRY RICHARD SCHREIBER, M.D. (1885–1950)

As Easter Sunday, April 9, 1950, drew to a close, death came unexpectedly to Dr. Henry R. Schreiber, beloved Washington physician. His mourners, friends and former patients, are legion.

Dr. Schreiber was President of the Medical Society of the District of Columbia in 1941–42 and served on the Executive Board for the next four years; three of these years, 1943–46, he was Chairman. He was known as "a doctor's doctor" because many doctors were also his patients. His home and office were located at 1716 Rhode Island Avenue, N.W.

Dr. Schreiber spent the first few years of his life in Lansing, Michigan, where he was born, September 15, 1885, the son of Ernst O. and Katherine Schreiber. He received his elementary training in the schools of that city, but most of his formal training was secured in Washington, D. C. He graduated from Eastern High School in 1903; from Georgetown University he received a scholarship for academic proficiency and was awarded his medical degree in 1907.

He served his internship at Children's and Garfield Memorial Hospitals; he continued his postgraduate training at the Lying-in Hospital of New York City as Assistant House Surgeon. After leaving these institutions he engaged in the private practice of medicine in Washington. Later he limited his practice exclusively to internal medicine, a field in which he attained an enviable status both as diagnostician and as clinician.

Whenever opportunity presented itself for postgraduate study, Dr. Schreiber availed himself of it. At various times he was enrolled in special work at the Johns Hopkins Hospital, Baltimore, and the Peter Bent Brigham and Massachusetts General Hospitals in Boston. It was said of him that he never seemed to tire of either the actual practice of medicine or its study.

For many years he was Professor of Clinical Medicine at Georgetown University and also Chief of the Medical Staff of Providence Hospital.

Dr. Schreiber's intense devotion to his medical practice left little time for outside activities. He did seek quiet and relaxation as often as possible at his country home near Alta Vista, Md.; in fact, he had just returned from there on the day of his death. At his country home he took an active interest in raising flowers, plants and shrubs.

During World War II, in spite of the enlarged demands his practice made upon his time, he assumed responsibility for the medical study of draftees at the Georgetown Hospital.

Dr. Schreiber was elected to membership in the Medical Association of the District of Columbia in 1909 and became a Life member of the District Medical Society on January 1 of this year. He was a Fellow of the American Medical Association, Past President of the Pan American Medical Association, and a member of the Georgetown Clinical Society. He was also a member of The Association of Oldest Inhabitants of the District of Columbia.

He married Miss Irene Virginia Dearborn of Alexandria, Va., in 1912, who survives him, together with a son, Henry R. Schreiber, Jr., of Washington, and two daughters, Mrs. Joseph Odell, of San Francisco, Calif., and Mrs. Victor Minter, of Washington. Two brothers survive, Dr. Frederick C. Schreiber, of Washington, who is an Active member of the District Medical Society, and Herman Schreiber, of Lansing, Mich. He also leaves two sisters, Mrs. Walter Weidman, of Woodbury, N. J., and Mrs. Henry J. Schneider, of Washington.

SIMON RUFUS KARPELES, M.D. (1880–1950)

Dr. Simon R. Karpeles, practicing physician in Washington for 48 years, died, April 3, 1950, at Garfield Memorial Hospital. Both he and his wife, the late Dr. Kate Karpeles, were well known Washington physicians and long-time Active members of the District Medical Society.

Dr. Karpeles was born in the District of Columbia on March 1, 1880. He attended Central High School and received his medical degree in 1902 from the Medical Department of National University, which was later absorbed by George Washington University. He was licensed to practice the same year. Since 1928 he had lived at 3549 Sixteenth Street, N.W., and maintained his office there.

Dr. Karpeles had been a member of the staff of Garfield Hospital since the beginning of his practice. It was there that he met his wife, the former

Miss Kate Bogle, who interned at Garfield. They were married in 1916; Mrs. Karpeles died in 1941.

During World War I Dr. Karpeles served as Captain in the Medical Corps of the U. S. Army and later was promoted to Major in the Reserve Corps.

He became a member of both the Medical Association and the Medical Society of the District of Columbia in 1903, and a Life member of the Society in 1944. He was a Fellow of the American Medical Association. He was also affiliated with the Arminius Lodge of the Masons.

Survivors include a son, Leo M. Karpeles, Seattle, Wash.; a daughter, Mrs. Della McKnew, Silver Spring, Md.; two sisters, Mrs. Teresa Taussig, Providence, R. I., and Mrs. Eva Buchholz, Springfield, Mass.; and a brother, Maurice J. Karpeles, Providence, R. I.

Medical Attitudes and Perspectives—Allen

(*Continued from page 241*)

ally and advanced the best possible solutions. When that spirit dies out of our American life, something will have gone which will have affected radically and changed the very nature and the characteristics of our society.

I am proud to be here this morning; I am grateful for the opportunity the Federal Government has afforded me to go to school to the National Defense Department this summer.

I wish you well on all your important activities of the year. You are to be congratulated on being a part of this fine university.

Physical Medicine for Older Patients—Watkins

(*Continued from page 248*)

SUMMARY

1. Methods of utilizing physical medicine in some conditions affecting the older age group have been described.

2. The diseases discussed in detail include degenerative arthritis of knees, hips, spine and hands, and idiopathic facial paralysis.

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The Doctor Cannot Win—Observer

(*Continued from page 270*)

potential candidates for heart disease. The doctor cannot win! Those who study these problems must come to understand the limitations on medical practice. They must understand that there are limitations on medical progress itself. The doctor can *only* change the age and cause of death. Medical care can never be adequate, despite the fact that the term 'adequate' was used by both of the gentlemen who preceded me. There is no adequate medical care for the family of a dying man. But the quest for better health, for longer life, for improved medical care will never end—it will go on and on. All that medical care can become is better. We are not talking about a black and white question. We are talking about a problem in which there are only shades of grey. We can only improve; we cannot perfect."

T. W.

This column will not appear in the June, July and August numbers of the Medical Annals. *It will be resumed in the September 1950 issue or Convention Number of the* Annals.

Medical Service and Civil Defense—Claudy

(*Continued from page 276*)

agency for the entire Metropolitan Area is essential. Such an agency should be designated and established by law at the earliest opportunity and given the necessary authority to proceed.

William D. Claudy, M.D.
Chairman, Subcommittee on Preliminary Estimates to the Committee on Emergency Medical Service of the Washington Metropolitan Area

MEDICAL ANNALS
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VOLUME XIX *June, 1950* NUMBER 6

LATERAL RUPTURE OF CERVICAL INTERVERTEBRAL DISCS[*]

A Review of Fourteen Surgically Treated Cases

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IT IS becoming more and more apparent that many patients suffering from neck and arm pain have lateral rupture of one of the cervical intervertebral discs. Until recently most published reports of cervical ruptured discs dealt with those rather uncommon cases that occur near the midline of the anterior wall of the spinal canal and therefore cause symptoms of cord compression. Stookey[1,2] in 1928 and in 1940 reported 3 different neurologic syndromes resulting from rupture of cervical intervertebral discs. The syndromes which he described were (1) bilateral cord compression, (2) unilateral cord compression, and (3) nerve root pressure alone without cord involvement.

In April 1943 Semmes and Murphey[3] described clearly the symptoms of lateral rupture of cervical intervertebral disc. The 4 cases described by them were all of lateral rupture of the left sixth cervical disc. They suggested that these cases are much more common than those with spinal cord compression. The symptoms produced were pain in the neck, precordial area and rhomboid area and down the medial or lateral aspect of the left arm, and sensory changes in the index and middle fingers of the affected side. One year later Spurling and Scoville[4] reported the first 12 cases of lateral rupture of cervical intervertebral discs operated upon in Walter Reed

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[*] From the Neurosurgical Section, Walter Reed General Hospital, Emergency Hospital, and George Washington University Hospital, Washington, D. C.

General Hospital. In this excellent report the authors clearly described the symptoms, signs, diagnosis, localization, differential diagnosis, anatomy and physiology as well as the treatment, both operative and conservative, of lateral rupture of cervical discs. Since the publication of their paper the clinical syndrome of the lateral cervical disc has become established; little has been added with respect to diagnosis or operative treatment.

However, many of the physicians who commonly recognize, or at least consider, ruptured lumbar disc when they see a patient with low back and leg pain too often do not consider a similar lesion in the cervical spine when they are examining patients with neck, shoulder and arm pain. Certainly, these cases have often been misdiagnosed; too frequently these symptoms are called neuritis of toxic or inflammatory origin. They may be misdiagnosed as scalenus anticus syndrome, arthritis, bursitis, hysteria, angina pectoris, etc.

This report is based on 14 cases of lateral rupture of the cervical intervertebral discs surgically treated since June 1946. Most of these patients were operated upon at the Walter Reed General Hospital, 2 were operated upon at the George Washington University Hospital, and 1 was treated at the Emergency Hospital. Pertinent data from these cases are tabulated in the accompanying table (table 1).

Incidence

All but 1 of the patients were males, but this preponderance of males may not be as significant as it seems at first, since most of these patients were encountered among Army personnel. The age incidence seems quite significant because 12 of the patients were between the ages of 33 and 41 inclusive, 1 patient was 24, and 1 was 52. A somewhat similar age distribution was reported by Spurling and Scoville.[4] In their series of 12 patients only 1 was under 30 years of age (28 years), and there were 7 aged 40 years or older. The ages are older than one encounters in a comparable group of patients with ruptured lumbar discs.

No history of trauma was obtained from 7 patients; 6 patients gave a history of trauma as the probable cause for their symptoms; 1 patient (case 7) gave a history of severe trauma which occurred when a land mine exploded. He was thrown 20 feet and landed on his left shoulder. After the initial episode he did not complain of pain in his neck until 6 years later. The incidence of a positive history of trauma in lumbar discs is probably about 50 to 60 per cent. Spurling and Scoville[4] report a relative frequency of 1 ruptured cervical disc to 12 ruptured lumbar discs. Our series of surgically treated patients with these 2 lesions indicates that the relative frequency is about the same.

A single lesion was located at the fifth disc in 6 patients and at the interspace below in an equal number of patients. One patient was found to have a ruptured disc at the seventh disc space, and the remaining patient (case 5) had 2 lesions, 1 at C-5 and the other at C-6. Spurling and Scoville[4] found twice as many ruptured discs at the sixth interspace as at the fifth interspace.

Symptoms

The initial complaint of all of our patients was neck pain which was frequently accompanied by stiffness. Eventually pain radiating into the shoulder and arm on one side occurred. This was often excruciating pain. Some had intermittent attacks, and in others there was constant pain. At the time of surgery all of them were having persistent pain in the arm unrelieved by conservative therapy including heat, diathermy and exercise. Most of the patients had been tried on traction. All but 1 complained of aggravation by coughing and sneezing. In nearly all of the cases the pain was aggravated by exertion. In addition to pain in the arm, they all complained of numbness or paresthesias in the arm but more usually in the hand. A few complained of weakness in the painful extremity. Many were bedridden. All were incapacitated for military duty or work.

TABLE 1

Fourteen Cases of Cervical Discs Treated Surgically

(N—negative or not present; P—positive or present)

			HISTORY								PHYSICAL					X-RAY				
IDENTIFICATION	AGE AND SEX	LOCATION	Duration	Trauma	Neck Pain	Shoulder Pain	Arm Pain	Numbness or Paresthesias	Aggravated by Coughing and Sneezing	Limitation of Neck Motion	Spine Tenderness	Neck Compression Test	Dermatome Sensory Loss	Motor Signs	Reflex Changes	Narrowed Disc	Straightening of Normal Curve	Osteophytes	Positive Myelogram	RESULTS
1. F. M.	33 M	C-5 R	8 Mos.	N	P	P	P	P	P	P	P	P	C-8	N	Biceps diminished	P	P	N	P	Excellent
2. H. S.	36 M	C-5 R	4 Mos.	P	P	P	P	P	P	P	P	P	C-8	N	N	P	P	N	P	Excellent
3. W. A.	39 M	C-5 R	9 Wks.	N	P	P	P	P	P	P	P	P	C-6	Weakness & atrophy biceps	Biceps diminished	P	P	N	P	Excellent
4. N. B.	41 M	C-6 R	4–5 Yrs.	N	P	P	P	P	P	P	P	P	C-7	Weakness triceps	Triceps diminished	P	P	N	P	Good
5. H. G	52 M	C-5 & C-6 L	11 Mos.	P	P	P	P	P	N	P	P	P	C-6 C-7	Atrophy triceps, biceps, deltoid	Triceps diminished	P	P	P	P	Poor, Improving
6. G. D.	35 M	C-6 R	3 Mos.	P	P	P	P	P	P	P	P	P	C-8	Weakness biceps triceps	Biceps triceps diminished	P	?	P	P	Excellent
7. T. G.	35 M	C-6 L	1 Mo.	?	P	P	P	P	P	P	P	P	N	Weakness triceps	N	N	P	N	P	Excellent
8 F. C.	38 M	C-6 L	3 Yrs.	N	P	P	P	P	P	P	P	P	N	N	N	P	P	P	P	Excellent
9. H. F.	40 M	C-6 L	3 Mos.	N	P	P	P	P	P	P	P	P	C-8	Weakness triceps	Triceps absent	?	?	?	P	Excellent
10. C. M.	41 M	C-5 R	16 Mos.	P	P	P	P	P	P	P	P	P	N	N	N	P	P	P	P	Excellent
11. O. L.	39 M	C-5 R	1 Mo.	P	P	P	P	P	P	P	P	P	N	N	N	P	P	P	P	Improved
12. J. P.	33 M	C-5 L	20 Mos.	P	P	P	P	P	P	P	P	P	N	N	N	P	P	P	P	Improved
13. J. L.	24 F	C-7 R	1 Yr.	N	P	P	P	P	P	P	P	P	N	Weakness of grip	N	P	P	P	P	Good
14. R. R.	39 M	C-6 R	3½ Yrs.	N	P	P	P	P	P	P	P	P	C-7	Atrophy triceps	Triceps diminished	P	N	P	P	Excellent

SIGNS

In many cases it was obvious that the patient was in acute pain. All of the patients held their neck stiffly, often slightly flexed to the side opposite the pain. All exhibited limitation of motion of the cervical spine and all complained of localized tenderness. In almost every patient there was spasm of the paravertebral muscles, especially on the side of the lesion. On percussion over the lower cervical spinous processes often it was possible to reproduce acute radicular pain and paresthesias in the painful extremity. The radicular pain, and often the paresthesias, as well as the neck pain, was produced by the neck compression test described by Spurling and Scoville.[4] This test is done by tilting the head and neck toward the painful side and applying pressure to the top of the head. The jugular compression test was not done in every case, but it was found to be positive in 4 cases and negative in 2.

Neurologic deficit was only encountered in 10 of the 14 patients. Objective dermatome sensory loss was encountered in only 8 in spite of the fact that all of the patients in this group complained of numbness or paresthesias. In 3 cases this sensory loss was not in the appropriate der-

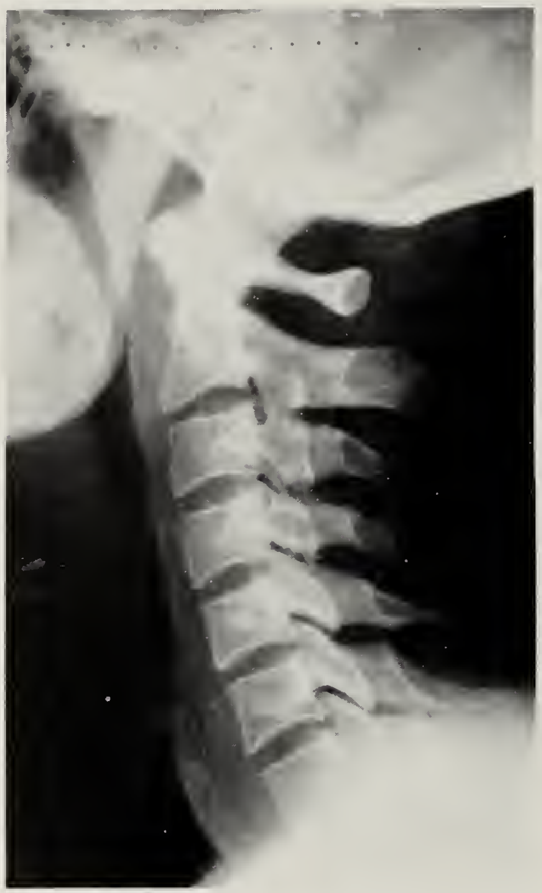

FIG. 1. Normal cervical spine showing normal curvature.

matome, but in the C-8 dermatome. These 3 patients were thought to have a reflex scalenus anticus syndrome, and the sensory loss was believed to be secondary to this. When no objective sensory loss was demonstrable, occasional patients complained of subjective sensory loss in the hand.

Motor signs consisting of weakness or atrophy, or both, were found in 8 patients. When the biceps was involved the disc was found at the C-5 interspace. When the triceps was involved the disc was found at the C-6 interspace. The 1 patient with a C-7 disc showed weakness of grip. Reflex changes were found in 7 patients. The biceps reflex was diminished in some of the patients with C-5 discs, and the triceps reflex was diminished in some of the patients with C-6 discs. Although it was not invariably so, reflex changes almost always paralleled the motor signs.

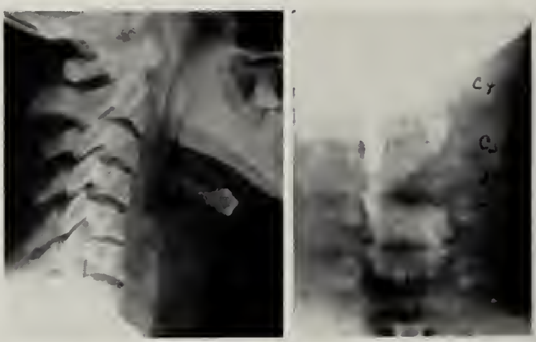

FIG. 2. Case 2. Film on left shows straightening of normal curvature of cervical spine and narrowing of fifth cervical disc. Film on right shows myelogram defect at C-5 right.

X-RAY FINDINGS

Roentgenograms were found to be of considerable aid in the diagnosis and localization of these lesions. In 12 patients the disc interspace

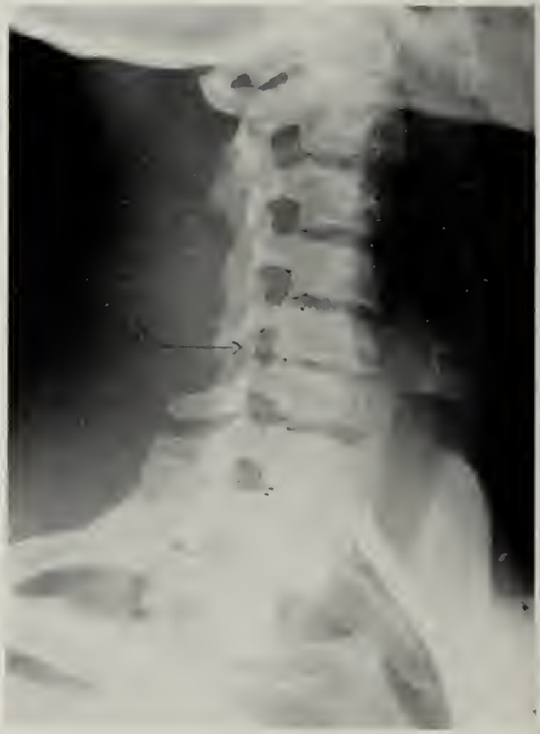

FIG. 3. Osteophyte formation in intervertebral foramen at C-5, C-6.

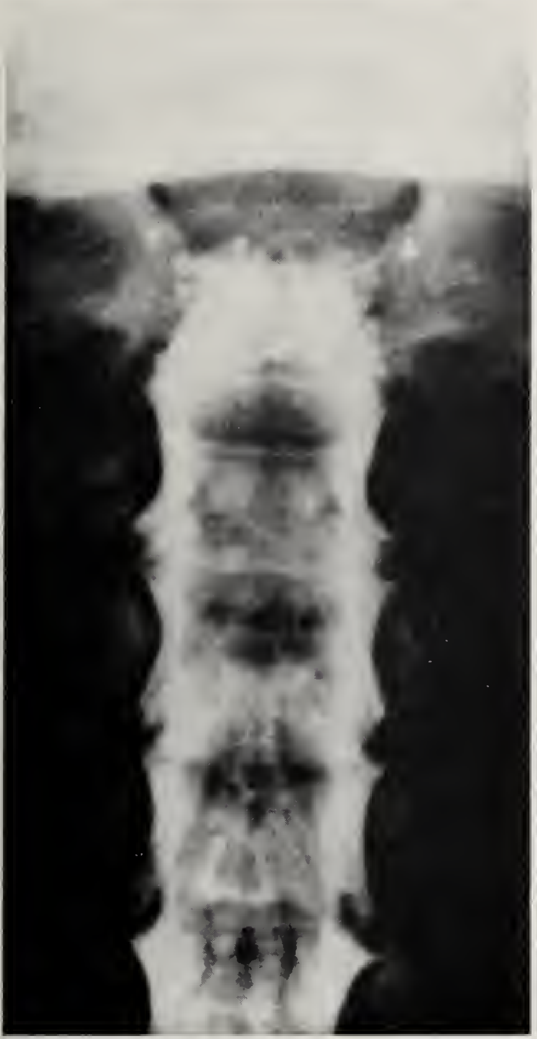

FIG. 4. Normal cervical myelogram

at the appropriate level was narrowed, and it was considered normal in 1 patient. The X-ray films of the remaining patient are not available for study at the present time. In the series reported by Spurling and Scoville[4] 10 of the 12 patients showed narrowing of the involved interspace. In 11 of our 14 cases the films showed absence of the normal cervical curve (figures 1 and 2). In oblique views of the cervical spine osteophytes were visualized in 8 patients at the appropriate level with narrowing of the intervertebral foramen (figure 3). In every case a myelogram was performed before surgery (figures 4 and 5). In each instance it was found to be positive at the appropriate level and was diagnostic of ruptured cervical intervertebral disc except for case 5, in which a very large defect was seen extending from the lower border of the C-5 vertebra to the upper border of the C-7 vertebra (figure 6). This was interpreted as a spinal cord tumor, but at surgery 2 large cervical discs, 1 at C-5 and 1 at C-6, were found.

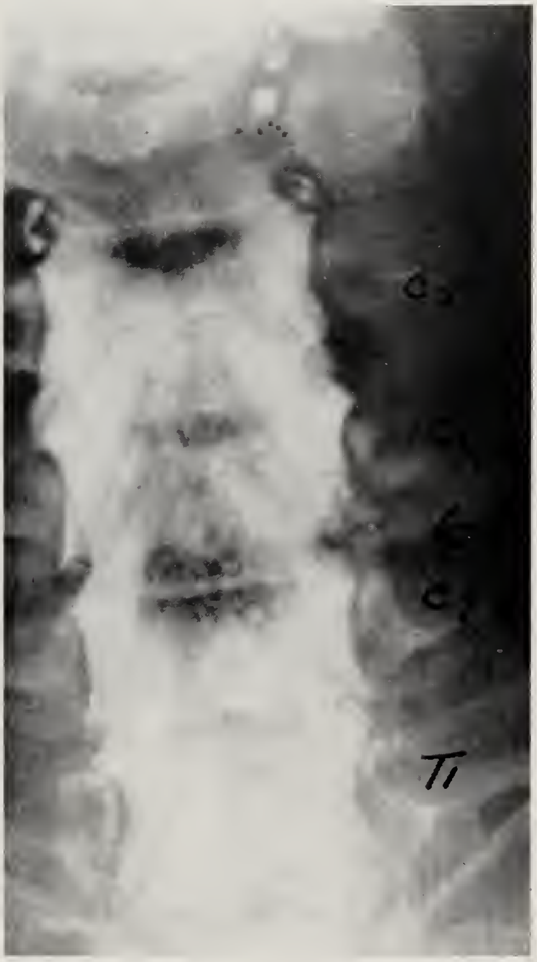

FIG. 5. Case 8. Typical myelographic defect for disc at C-6, C-7 left.

TYPICAL CASE REPORT

Case 3. A 39-year-old automobile salesman was admitted to the Emergency Hospital on July 25, 1949, complaining of pain in the neck radiating into the right arm. He stated that he had developed stiff neck for the first time 8 weeks before. He gave no history of trauma.

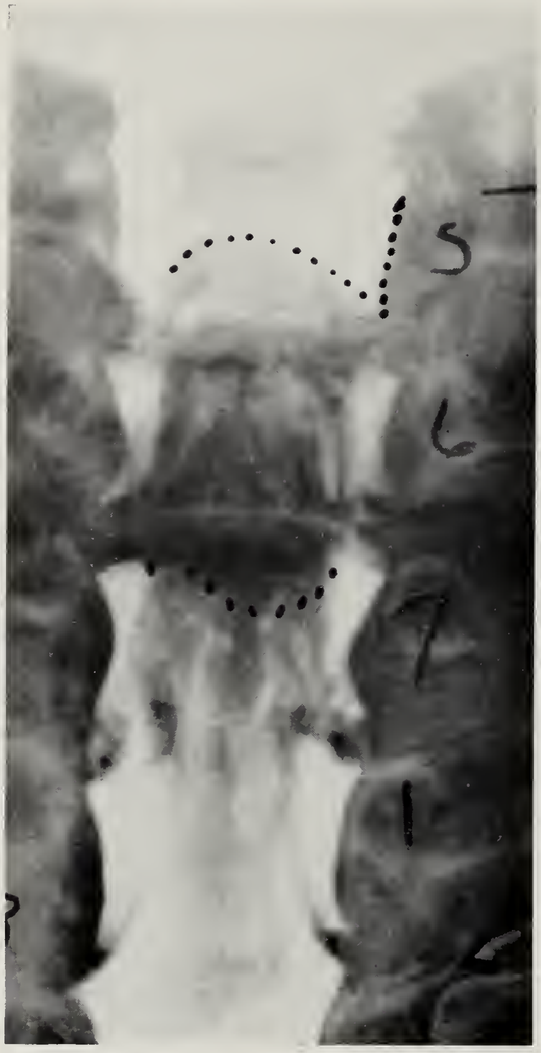

FIG. 6. Case 5. Large myelographic defect from middle of C-5 to C-7, later proved to be a double disc at C-5 and C-6.

Gradually the pain had radiated into the right shoulder and right arm and he developed paresthesias in the thumb. He had no complaint of weakness, but complained of severe pain. He had received considerable conservative therapy in the form of diathermy and massage as an outpatient from his private doctor. Although he had improved somewhat from time to time, the pain became so severe that he had to be admitted to the hospital.

On physical examination he was found to be a well-developed white man in acute pain. There was obvious stiffness of the neck and marked limitation of motion of the cervical spine. There was marked spasm of the cervical paravertebral muscles. The neck compression test was positive to the right and produced paresthesias in the right thumb. There was marked tenderness on pressure over the spinous processes at C-5 and C-6. There was definite atrophy and weakness of the right biceps muscle with marked diminution of the biceps reflex. Sensory examination revealed hypo-esthesia in the C-6 dermatome distribution.

Clinically this patient was thought to have a ruptured cervical disc at C-5 on the right side. X-ray films of the cervical spine showed narrowing of the C-5 disc and absence of the normal cervical curve. Because he did not improve even after 10 days of traction and diathermy while in the hospital, a myelogram was done which showed a large defect at C-5 on the right side (figure 7). The spinal fluid protein was 60 mg. per cent. The patient was subsequently operated upon on August 6, 1949, and a ruptured intervertebral disc was found at C-5 with a loose, torn fragment of cartilage compressing the C-6 nerve root. Postoperatively the patient made an uneventful recovery. He was allowed up on the fifth postoperative day and discharged on the seventh postoperative day completely free of his pain. His biceps reflex returned to normal almost immediately postoperatively. Three weeks postoperatively the patient returned to work. At this time his neurologic signs had completely disappeared.

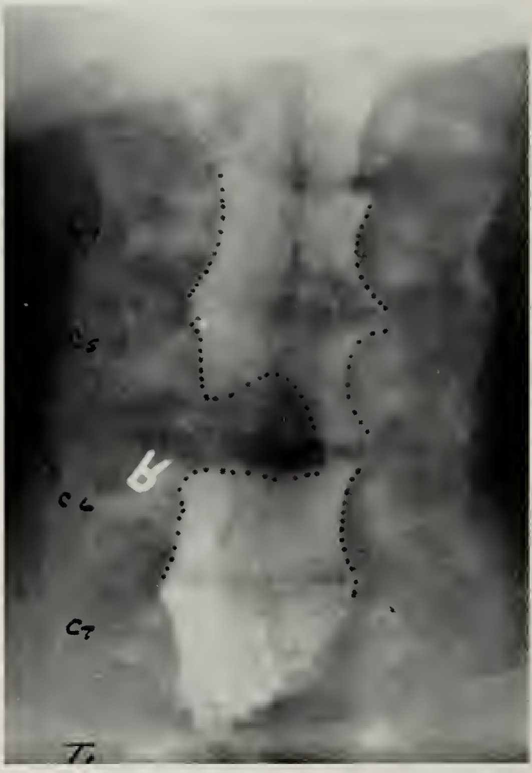

FIG. 7. Myelogram, case 3, showing large defect at C-5 right.

OPERATIVE PROCEDURES

Preoperatively a diagnosis of lateral ruptured cervical intervertebral disc was made in all but 1 of the cases (case 5). This patient was operated on for a possible cervical cord tumor because of a large myelographic defect but was found to have 2 large, calcified, bulging, ruptured cervical intervertebral discs which were laterally placed. In this case a classical cervical laminectomy was done. In the remaining 13 patients a unilateral interlaminar exploration was performed.

All of the patients were operated upon in the upright position with the Craig headrest. This position has been found to be more satisfactory than the prone position, since visualization of the field is better and there is less bleeding. Any bleeding that occurs drains dependently, and the depths of the wound are not obscured. All of the patients received intratracheal general anesthesia. Localization was usually accomplished by injecting a few drops of methylene blue into one of the spinous processes in the vicinity of the ruptured disc, and then, with the needle still in place, lateral roentgenograms were taken to definitely identify which spinous process had been marked.

A unilateral interlaminar exploration was accomplished by making a vertical midline incision over the spinous processes centered at the site of the lesion. The wound was carried down to the spinous processes. Paravertebral muscles were dissected subperiosteally away from the laminae and laterally on the affected side. A small opening was made laterally in the laminae of the vertebrae above and below the site of the rupture. This was most easily done with a Hudson burr. This opening was placed laterally enough to partially unroof the neural foramen, and in order to do so often the inner edge of the articular facet was partially removed. The ligamentum flavum, thus exposed, was resected. When necessary the bony opening was enlarged with an appropriate rongeur. When this was done the nerve root, surrounded by dura, could easily be seen as it left the cervical cord. When a ruptured disc was present the root would be found tightly compressed and pushed posteriorly by an anterior mass. The root was then carefully separated from the mass and was easily retracted upward or downward in order to expose the ruptured disc. Often this disc was a free piece of cartilage which had herniated through the annulus fibrosis. At times the annulus was not completely torn and had to be incised in order to remove the ruptured portion of the nucleus. In some of the older cervical discs there was a bony overgrowth covering the bulging disc. At times this could be removed with little difficulty. Often this was not necessary as long as the nerve root was adequately decompressed by unroofing the intervertebral foramen. It was possible to remove free fragments of cartilage in 9 patients. In the remaining 5 cases only decompression of the involved nerve roots was done. The wounds were closed in layers with interrupted silk sutures.

Postoperatively the patients were allowed up usually on the fifth day. In almost all cases there was immediate relief of pain. There were no complications except for a recurrent draining sinus in case 12, which cleared after excision a year later. At the time of excision of the sinus some silk sutures were removed which apparently had been maintaining it.

RESULTS

We classified our results in 3 groups (table 1): (1) excellent, 9 patients, (2) good, 4 patients, and (3) poor, 1 patient. Those classified as excellent have no complaints referable to their disc and have returned to work or to duty. Those whose results were considered good have only mild and occasional complaints of neck pain or stiffness and have returned to duty, except for 2 patients who were separated from the Service essentially for other reasons. The patient (case 5) tabulated as a poor result is the patient who had the 2 discs and who had a classical laminectomy. He was operated upon on August 26, 1949. He is still hospitalized and is improving. Immediately postoperatively the neruologic deficit in the left arm was increased. His pain now is a great deal better than preoperatively, and his neurologic deficit is only slightly improved over the preoperative state.

COMMENT

In the differential diagnosis any lesion causing nerve root pressure, either bony, inflammatory or neoplastic, must be considered. Frequently X-ray films and myelograms will allow one to establish the diagnosis. Scalenus anticus syndrome is often considered in patients with cervical discs. Certainly, this syndrome causes sensory changes in C-8 dermatome, i.e., in the ulnar distribution of the hand and it is a frequent manifestation of cervical spine pathology, especially in the cases of ruptured cervical discs. As a matter of fact, the presence of scalenus syndrome per se, without cervical rib or cervical spine pathology, probably does not exist.

The precordial pain that some patients with cervical disc complain of is of considerable interest and certainly indicates that we should consider the cervical disc syndrome in some cases of precordial pain. Nachlas[5] first pointed out the occurrence of this syndrome with cervical arthritis. He postulated that, although the medial anterior thoracic and the lateral anterior thoracic nerves are essentially motor nerves to the pectoral muscles, they may be responsible for the precordial pain found in cervical lesions. Semmes and Murphey[3] describe precordial pain with the cervical disc syndrome. In 1946 Josey and Murphey[6] reported 8 cases of cervical disc syndrome with psuedo-anginal pain in which coronary disease was considered before the diagnosis was made. We often see patients with interscapular pain in whom we feel the cause is of cervical spine origin and that often it is due to a ruptured cervical disc.

The diagnosis of ruptured cervical discs is not difficult. It should be stressed that when examining a patient with neck and arm pain this diagnosis should always be considered. There need not be a history of trauma. These patients have limitation of motion of the cervical spine, and the Spurling-Scoville neck compression test is almost pathognomonic. They often have sensory changes in the C-6 dermatome (thumb), or the C-7 dermatome (index and middle fingers). If a scalenus anticus syndrome is also present, they have C-8 sensory changes. They often have weakness, with or without atrophy of the biceps or triceps muscles, with diminution of the corresponding reflexes. X-ray films are of invaluable aid in establishing the diagnosis. Almost invariably they show narrowing of the involved disc interspace and absence of the normal cervical curve, and if a myelogram is done it is usually positive. Localization of the ruptured disc is possible by means of the X-ray changes described above and often on the basis of the physical examination. A patient with weakness of the biceps and diminished, or absent, biceps reflex will almost invariably have a disc at the fifth cervical interspace, and when the motor signs and reflex changes occur in the triceps muscle the sixth disc is the site of the lesion.

The anatomy in the cervical region is somewhat different from that in the lumbar region. Since the spinal cord more fully fills the cervical spinal canal than it does in the lumbar region, a smaller mass causes cord compression in the cervical region. The nerve roots emerge from the dural sac at right angles and at the level of the disc interspace. The size of the normal cervical disc is much smaller than that of the lumbar disc, and usually the protruded portion of disc is smaller. However, because of the close quarters a smaller mass is sufficient to cause symptoms, especially since the emerging nerve root travels immediately over the disc on its way to the foramen. In addition, the intervertebral foramen is much smaller in the cervical region. When a cervical disc protrudes laterally it often narrows the intervertebral foramen in the anteroposterior direction. This results in pressure on the root not only from the disc, but from compression of the root against the inner border of the facet which forms the posterior roof of the intervertebral foramen. Fortunately it is often only necessary to unroof the foramen, since in older protrusions there is an osteophyte which is at the site of rupture narrowing the foramen. The osteophyte is merely calcification of the torn annulus and the posterior longitudinal ligament over the herniated nucleus pulposus.

Conservative therapy is initially the treatment of choice and is often all that is necessary. We certainly have seen a large number of patients who have responded well to conservative therapy. During the acute attack we believe an attempt should be made to relieve the muscle spasm with bedrest, narcotics, heat or diathermy, and cervical traction. Recently we have found Tolserol to be of considerable aid in relieving muscle spasm. During the subacute stage the conservative therapy can be carried out on an ambulatory basis.

If in spite of conservative therapy there is persistent incapacitating neck and arm pain, we believe that surgery is the treatment of choice. It can be done with a minimum of risk. The postoperative results are usually gratifying.

SUMMARY

Fourteen surgically treated cases of lateral rupture of the cervical intervertebral disc are reviewed. The symptoms, signs, X-ray findings and differential diagnosis are discussed. The treatment and postoperative results are reviewed.

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GENERALIZED VACCINIA

A Report of Two Cases in Children

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GENERALIZED vaccinia is the term applied to the generalized eruption of typical vaccinial lesions that occur after vaccination. However, generalized vaccinia in a patient with preëxisting eczema has been given various names such as eczema vaccinatum, eczema herpetiforme, pustulosis vacciniformis acuta, and Kaposi's varicelliform eruption. This condition is uncommon but is a serious complication of vaccination. One survey[1] places the incidence at 1 in 96,000 vaccinations with the case fatality rate at 12 to 30 per cent. About two thirds of the persons in whom these complications occur have had longstanding diseases of the skin; many are children with eczema. In 1947, 6,350,000 inhabitants of New York City were vaccinated with the incidence of varicelliform eruptions of approximately 1 case to 150,000 vaccinations.[2] From this mass vaccination 45 persons developed generalized vaccinia; 38 had a preëxisting dermatosis, usually eczema. Out of the 45, 28 had not been vaccinated, and all but 1 were children under 5 years of age. Two infants died; both were under 1 year of age, neither had been previously vaccinated but both had had intimate contact with a vaccinated person.[3]

The following statistics indicate the rarity of this condition in different countries: France, 6 to 8 cases among 500,000 to 600,000 vaccinations (Chauveau); Germany, 50 to 60 cases among 100,000 vaccinations (Voigt); Denmark, 4 cases among 39,915 vaccinations (Haslund).[4] In Mustard and Hendrick's study[5] of 15 cases of generalized vaccinia, 11 out of the 15 patients gave histories of infantile atopic eczema. Earlier in 1936 Nimpfer[6] reported 4 cases of generalized vaccinia developing in patients suffering from burns. Until very recently there was no positive evidence that the eruptions under discussion could be due to any agent other than the vaccine virus. However, in 1941 Esser[7] concluded that the eruption was due to a herpes-like virus. Wenner[8] in 1944 came to the conclusion that the eruption was due to a virus which was closely related to, if not identical with, the virus of herpes simplex. The diagnosis of generalized vaccinia is usually made in patients with histories of some concurrent skin disease, a recent smallpox vaccination either in the patient or in close contact of the patient, and a negative history for exposure to variola. The presence of multiple pustular umbilicated lesions, asymetrically distributed and associated with pruritus, toxicity, and fever, complete the prerequisites for diagnosis. At the present time there are 3 laboratory tests of value as an aid to the diagnosis of this condition. These tests are the Paul test, the complement-fixation test, and the neutralization test. In the differential diagnosis one must consider impetigo, variola, erythema multiforme bulbosum, postvaccinial urticarial reactions, and multiple vaccinations. The mode of therapy in this condition has varied over the years from symptomatic treatment to potassium permanganate compresses to inhibit local spread by auto-inoculation[9] and chemotherapy and the use of penicillin. Recently aureomycin was used by Perry and Martineau[10] in a case of generalized vaccinia with apparent benefit.

The 2 cases presented here varied markedly in severity, but they both fulfill the necessary prerequisites for the diagnosis of generalized vaccinia. The first patient was so ill that she was placed on the critical list and was hospitalized for a period of 40 days. On the other hand, the second patient developed only a few eruptions, was hospitalized early, and was well enough to be discharged within 3 days.

REPORT OF CASES

Case 1. K. M., a Negro female aged 17 months, was admitted to Children's Hospital on September 30, 1949. The history indicated that the child had suffered from eczema since the age of 3 months. According to the parents, the sequence of events preceding the child's admission to the hospital was as follows: The patient was well until 36 hours prior to admission when she developed generalized pruritus followed by a generalized papular eruption of her skin (figure 1). The child's brother and sister, both of whom were in close contact with the patient, had been vaccinated against smallpox on September 21, 1949, 9 days prior to the patient's admission to the hospital.

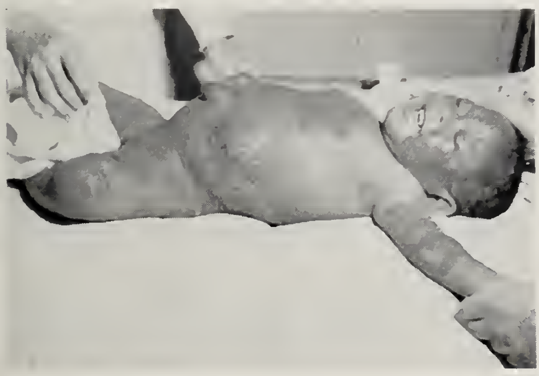

FIG. 1. Case 1. Photograph taken 72 hours after onset of illness.

When the child was admitted she was acutely ill and extremely irritable. The temperature was 104° F., and the pulse and respiratory rates were rapid. Masses of confluent, crusted, and weeping lesions were present over the face, scalp, arms, trunk, legs, buttocks, and genitalia. Both eyelids were closed by extensive involvement of those areas (figure 2). The typical individual lesion was raised, flattened, and pustular, first becoming umbilicated and later crusted.

The child's temperature remained elevated for 11 days, the peak being 105° F. on the third hospital day. By the end of the eleventh hospital day the skin lesions were desquamating and new crusts were forming.

The urinalysis revealed some albuminuria, and a few pus cells on 2 occasions. The white blood cell count on admission was 25,000 leukocytes with a marked shift to the left; the hemoglobin was 10 grams, and the red blood cells numbered 4,100,000 per cu. mm. of blood. Sickling was negative, as was the serological test for syphilis.

A nonallergic diet and Nutramigen milk were given, as well as procaine penicillin, 100,000 units twice daily, and chloromycetin, 250 mg. every 4 hours. Phenobarbital was used to allay severe restlessness and irritability.

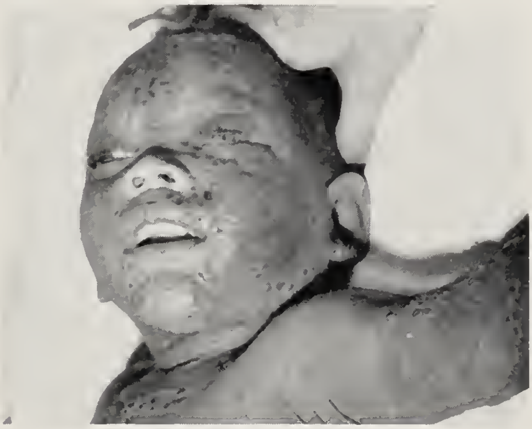

FIG. 2. Case 1. Lesions on head and condition of eyelids 12 hours after admission.

After the subsidence of the acute illness and the vaccinial lesions, local treatment was instituted for the underlying eczema. The child was discharged on her fortieth hospital day.

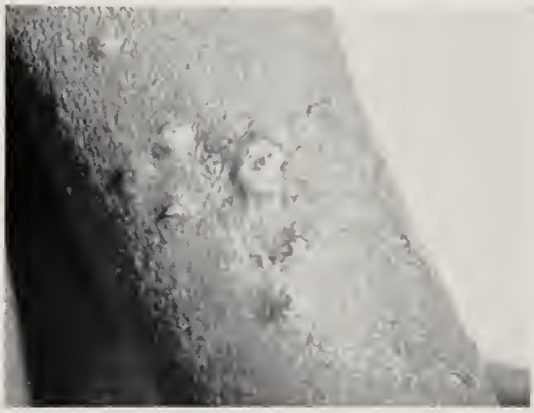

FIG. 3. Case 2. Weeping lesions on right arm on admission to hospital.

Case 2. W. J., a 2-year-old colored male, was admitted to Children's Hospital on October 31, 1949 because of the development of a few pustular lesions on the right arm (figure 3) and on the lateral aspect of the left knee. The history disclosed typical eczema since the age of 9 months. The patient had a younger sister 1 year of age with whom he slept. The sister had been vaccinated against smallpox 3 weeks prior to the patient's admission to the hospital.

Physical examination on admission revealed a well-developed, well-nourished, colored male in no apparent distress with thick, leathery, eczematous skin most marked over the knees and elbows. The temperature upon admission was 100.6° F. There were 8 or 10 pustular umbilicated lesions measuring 0.5 to 0.75 cm. in diameter in the right deltoid region and 4 or 5 such lesions on the lateral aspect of the left knee. Axillary lymphadenopathy was present.

The red blood cell count was 4,300,000, and the hemoglobin was 11 grams. The total white blood count was 9,000. The differential blood picture showed a relative lymphocytosis. The lesions passed from the umbilicated stage to the crusted stage.

The child was put on a nonallergic diet, and the lesions were treated with Furacin saturated gauze. The child made an uneventful recovery and was discharged on his third hospital day.

Discussion

The rarity of this condition as well as the lesson derived from these cases prompted me to review the records of Children's Hospital for the past 15 years. There were no other cases of generalized vaccinia which met the criteria mentioned in this paper. However, 1 case of auto-vaccination in a 5-year-old colored female who had been vaccinated against smallpox and had auto-vaccinated herself in several areas from the primary lesion on the left arm was found. This child did not have a history of previous skin infection.

A few simple precautions concerning vaccinations must be mentioned here. Infants should be vaccinated during the first few months of life before the onset of most allergic skin conditions and before the child develops the scratch technic. Children with skin conditions should have their vaccinations deferred until recovery has occurred. It is also important that the parents of children to be vaccinated be questioned thoroughly concerning active eczema in other members of the household or playmates with whom the subject to be vaccinated might come in contact. If vaccination is absolutely necessary, in spite of an eczema contact, the vaccinated child should live apart from the child with the skin condition until completion of the vaccination reaction. Concerning the small children who we know will scratch, it is advised that a sterile gauze be placed over the vaccinated area. If these simple rules are observed, the incidence of generalized vaccinia will become even more rare.

Summary

A brief discussion of the condition known as generalized vaccinia is given. The presentation of 2 cases of generalized vaccinia, 1 severe and the other mild, with treatment and recovery of both cases is made. Precautionary measures which should lower the incidence of generalized vaccinia are proposed.

N.B. The author wishes to express his appreciation to Drs. William Foster Burdick and Edward Lewis, Chiefs of Service, for permission to report these cases and to Dr. Hassan Ahari for his coöperation in preparing this report. The photographic work was done by Mrs. Peyton Dunn.

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THE TREATMENT OF GONOCOCCAL ARTHRITIS WITH STREPTOMYCIN

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THE susceptibility of gonococci to streptomycin in the test tube has been demonstrated. There are several reports [1,2] on the successful treatment of gonorrhea with a single injection of 0.3 to 0.5 Gm. of streptomycin. We[3] have recently reported the results of the treatment of gonococcal arthritis over the past 12 years. Since only 84 per cent of patients adequately treated with penicillin recovered, it was decided to treat patients with gonococcal arthritis with streptomycin administered parenterally. Further support for this method of treatment was obtained from the study[4] showing that adequate amounts of streptomycin were found in joint fluid following intramuscular injection. This publication is a preliminary report of the treatment with streptomycin of 3 patients diagnosed as having gonococcal arthritis.

The diagnosis in each patient was established on the basis of the criteria suggested by Spink and Keefer.[5] These same criteria served as the basis of selection in our previous study. In the presence of inflammatory rheumatism the diagnosis was considered definite if organisms morphologically resembling gonococci were found on smear or culture of the joint fluid. This was particularly true if the organisms were also found by smear or culture of exudate from the genitourinary tract. The diagnosis was considered probable in the absence of positive bacteriologic findings in the joint fluid, provided the organisms were found in specimens taken from the genitourinary tract and other studies did not indicate another type of arthritis. Similarly a positive complement-fixation test was accepted as probably diagnostic in the absence of positive bacteriologic findings in the joint fluid or the genitourinary tract. when other forms of arthritis were ruled out.

REPORT OF CASES

Case 1. The first patient treated was a Negress aged 24 years. Three weeks before admission she noted profuse creamy vaginal discharge, frequency, pain and burning on urination. Several days after the onset she consulted a physician who prescribed a sulfonamide in doses of 2 tablets 4 times a day. This was continued until 2 days before admission. Symptoms were only moderately relieved. Three days before admission she developed pain, tenderness, swelling, redness and heat in the left knee which increased in severity until admission. The remainder of the history was completely noncontributory.

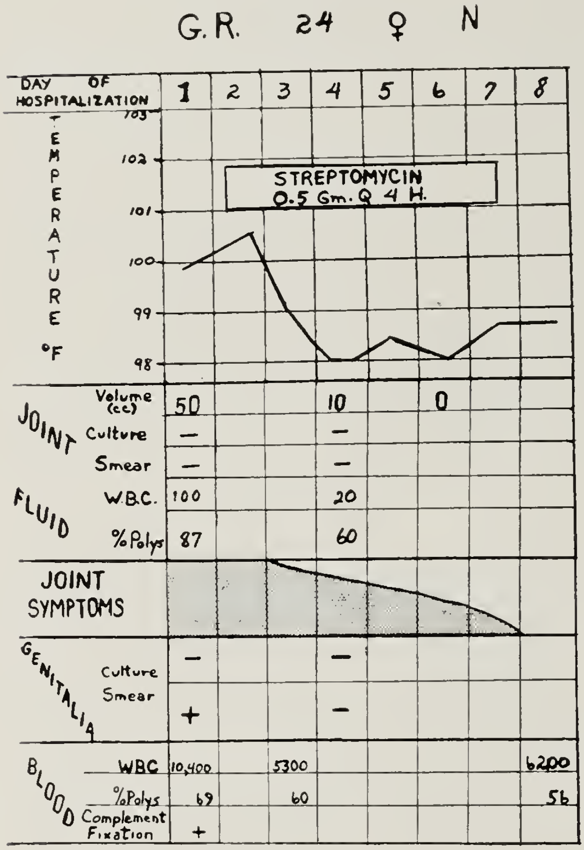
Examination was entirely negative except for evidences of a bilateral salpingo-oöphoritis, cervicitis, and profuse purulent cervical discharge. In addition there were evidences of a marked inflammatory arthritis involving the left knee.

All laboratory studies were essentially negative except for the joint fluid which contained 100 white blood cells per cu. mm. with 87 per cent polymorphonuclear leukocytes. Smears made from the cervical exudate showed organisms morphologically resembling gonococci. The complement-fixation test of the blood for gonococcal infection was positive.

The patient was started on 0.5 Gm. of streptomycin every 4 hours, which was continued for 6 days. There were evidences of improvement after 48 hours, and the patient was completely recovered at the conclusion of treatment. The genitourinary symptoms improved early in the course of treatment. The clinical course is demonstrated in chart 1.

CHART 1

Clinical Course of Case 1



Case 2. The second patient, a Negress aged 17 years, was well until 4 days before admission, when she developed pain, tenderness, swelling and heat in the left knee. This increased in severity until the time of admission. Further questioning revealed that for the past several months she had had dull aching discomfort over her lower abdomen which was marked during her menstrual periods. She had also noted that her periods were more prolonged and more uncomfortable and that a great amount of menstrual flow was present. During her present illness her period had been followed by a vaginal discharge for several days. This had not occurred heretofore. The remainder of the history was completely noncontributory.

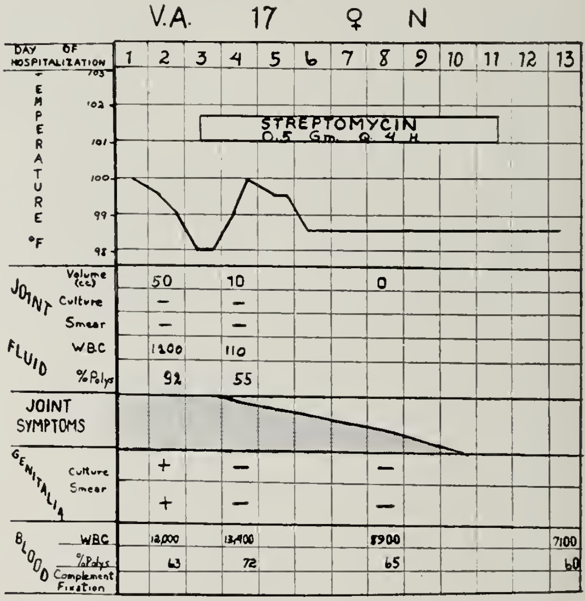
Examination was entirely negative except for evidences of a bilateral salpingo-oöphoritis, cervicitis, and moderate mucopurulent cervical discharge. In addition there were signs of a moderate inflammatory arthritis involving the left knee.

Positive laboratory findings included the joint fluid, which contained 1,200 white blood cells per cu. mm. with 92 per cent polymorphonuclear leukocytes. Smears and culture made from the cervical exudate showed organisms morphologically resembling gonococci, as confirmed by sugar fermentation studies. Examination of the blood revealed slight leukocytosis.

The patient was started on 0.5 Gm. of streptomycin every 4 hours and continued for 10 days. Improvement was evident after 24 hours, and the patient was completely recovered after 8 days of treatment. The genitourinary symptoms disappeared early in the course of treatment. The clinical course is demonstrated in chart 2.

CHART 2

Clinical Course of Case 2



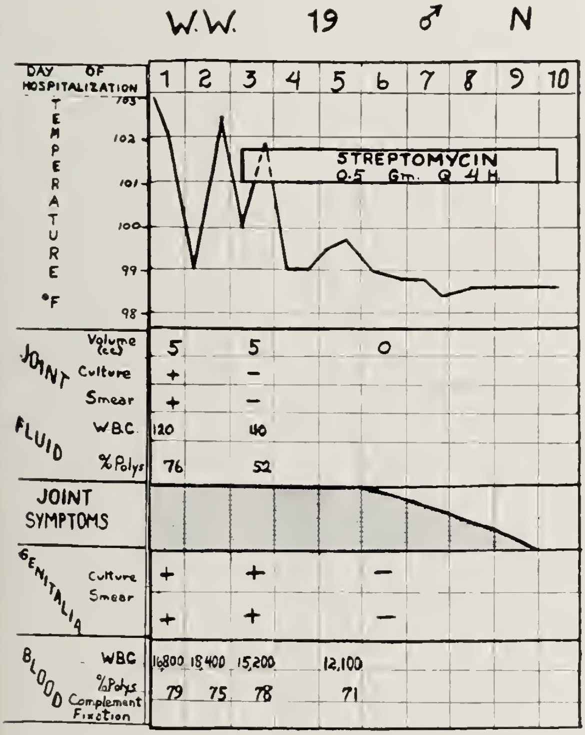
Case 3. A Negro aged 19 years had been exposed sexually 10 days before admission and 4 days later had developed a purulent urethral discharge with frequency, pain, and burning on urination. He was given sulfonamide tablets by a physician the day after the onset of his genitourinary symptoms. He took the tablets irregularly until admission. Two days before admission his right knee and ankle became involved.

Examination was entirely negative except for a purulent urethral discharge and an inflammatory arthritis involving the right knee and ankle. Examination of the joint fluid showed 120 leukocytes per cu. mm. containing 76 per cent polymorphonuclear leukocytes. Smears and culture of the joint fluid and urethral exudate revealed organisms morphologically resembling gonococci and confirmed by sugar fermentation studies. Blood counts revealed a moderate leukocytosis.

The patient was started on 0.5 Gm. of streptomycin every 4 hours and continued for 7 days. Improvement was evident after 72 hours of therapy, and the patient was completely recovered at the conclusion of therapy. The genitourinary symptoms disappeared within the first 24 hours of therapy. The clinical course is demonstrated in chart 3.

CHART 3

Clinical Course of Case 3



Discussion

It is impossible to adequately evaluate the effectiveness of streptomycin in the treatment of gonococcal arthritis from this report. Although up to 25 per cent of patients with this type of arthritis recover spontaneously, it would be fortuitous for this to have occurred in these 3 patients. Since the number of cases of gonococcal arthritis now seen in any clinic is small, these encouraging results are reported for the purpose of stimulating interest in the treatment of gonococcal arthritis with streptomycin, particularly since there have been no previous published reports. Although penicillin is extremely effective in the treatment of gonococcal arthritis, significant numbers of patients (16 per cent) fail to respond. Streptomycin may prove to be more effective than any previously available drug or at least useful when the tried methods have failed. With the dosage schedule of streptomycin utilized toxicity will not be important.

Summary

Three patients with an initial, early attack of gonococcal arthritis were treated with 0.5 Gm. of streptomycin every 4 hours for periods of 6 to 10 days. All made prompt and uneventful recoveries.

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NEUROCIRCULATORY ASTHENIA*

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THERE are many terms which have been applied to the disorder under discussion. Irritable heart,[1] soldier's heart,[2] disordered action of the heart,[2] effort syndrome,[3] neurocirculatory asthenia (NCA),[4] autonomic imbalance,[5] psychoneurotic cardiovascular disease,[6] and functional cardiovascular disease[7] are the principal designations by which this disease is known.

All of them refer to a disorder in which the prominent features are nervousness, fatigue, sweating, palpitation, precordial pain, fever, shortness of breath, spells of giddiness or faintness, episodes of apprehension, and trembling, with increase of symptoms occurring on effort, after emotional stress, or spontaneously. Not all of these symptoms necessarily occur in every patient, and there may be many other symptoms of a psychic, nervous, or visceral nature. All of these symptoms occur in the absence of demonstrable disease of the nervous system, cardiovascular tree, or endocrines, although the illness may accompany any other disorder.

SYMPTOMATOLOGY

A number of studies have been done in an attempt to elucidate the nature of the illness and its pathogenesis, approaching the disease from its clinical, physiologic, neurologic, and psychiatric aspects.[1-9] Da Costa (1871) described the cardiovascular and respiratory manifestations as well as the gastrointestinal and nervous symptoms. He felt that the cardiac disorder was functional, and that fever and overexertion were important causative factors. MacKenzie (1916), Fraser and Wilson (1918), and Lewis (1919), among others, recognized that the disorder had a strong psychic element but were of the belief that it was primarily a cardiovascular disease. Oppenheimer and Rothschild (1918) noted the presence of a familial and personal history of psychoneurotic factors in half of their patients, and of 'constitutional asthenia' in 70 per cent. They considered the possibility of an "irritable weakness" of the nervous system including the nerve supply to the cardiovascular system. Cohn (1919) considered the disease a neurosis. Culpin (1920) believed that psychogenic or neurogenic factors were responsible for the disease, that it was a neurosis in which perhaps autonomic centers were disturbed. Kerr, Dalton, and Gliebe (1937) showed that the hyperventilation syndrome occurred in anxiety neurosis, and implicated the autonomic centers in the production of somatic complaints in these patients. They emphasized that emotions could play a dual role, affecting the cortex with the production of neurosis, and affecting the autonomic system with episodes of sympathetic activity. Wood (1941) felt that neurocirculatory asthenia had an emotional basis and that environment and experience were important in its etiology. Friedman (1945), after a study of patients from a clinical, physiologic, psychologic, and experimental point of view, concluded that the illness was a variety of anxiety neurosis with cortical-hypothalamic imbalance. He described acute and chronic varieties. Cohen, White, and co-workers emphasized the physiologic abnormalities in their patients, the high familial incidence, and the presence of both acute and chronic cases. Recent investigators[7,8] have emphasized the need to divide the disease into the acute and the chronic variety.

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* Read before the Cardiovascular Section at the Third Interim Clinical Session of the American Medical Association in Washington, D. C., December 9, 1949.

Patients in the acute group had a history of previous good health, adequate response to exercise, and nervous and autonomic stability prior to their illness. In the chronic group were included those patients who had long-standing histories of the stigmata of neurocirculatory asthenia.

A brief discussion of some of the more prominent symptoms and signs might well serve to illustrate the nature of the illness. Fever occurred in 37 per cent of the patients studied by Friedman, who did exhaustive studies to exclude infection as a cause. The maximum temperature usually occurred in the evening and was not necessarily present daily or in any fixed pattern. The highest temperature observed was 102° F., although the usual maximum was 100.5° F. Fever was never found in patients immediately upon waking but only after the patient had been awake for 30 minutes or more, and "must be considered as exclusively associated with the conscious state."[7] During the fever the patient invariably exhibited other signs of the syndrome, such as tremor of the extended fingers, intensive sweating localized to the skin of the hands, feet and armpits, and cold hands and feet. Further studies showed that the fever did not respond to the ordinary antipyretics (acetylsalicylic acid) or cortical depressants (sodium amytal, scopolamine, potassium bromide). Contrariwise, these patients would develop fever after central stimulants such as caffeine, benzedrine, or emotional excitement. Usually it appeared without apparent antecedent reason. Friedman[7] concluded that the occurrence of fever in the disease indicated the involvement of the hypothalamus in its pathogenesis.

Cardiovascular disorders occur in the absence of evidence of heart disease, as indicated by negative physical, roentgenographic and electrocardiographic findings in these patients. Precordial pain may be a sharp, momentary, stabbing sensation in the region of the nipple going deep into the chest. On close observation of a group of patients,[7] it was found at the time of the occurrence of the pain that a transient arrhythmia was present, or that the heart was pounding forcibly. Also present at the same time were an accentuated tremor, cold clammy hands, with excessive sweating of the hands and axillae, and dilatation of the pupils. These findings suggest an acute sympathetic discharge, with the sharp precordial pain and cardiac findings being part of it. A frequent accompaniment was the complaint of palpitation.

Although it has generally been reported that arrhythmias are infrequent,[10,11,12] Friedman[7] noted an incidence of about 22 per cent. Ventricular extrasystoles were most frequent, followed in decreasing frequency by paroxysmal auricular tachycardia, wandering auricular pacemaker, and auricular flutter or fibrillation.

Peripheral vascular changes with facial flushing, coldness, and pallor or blueness of the hands occur commonly, usually accompanying the excessive sweating, tremor, arrhythmia or rapid breathing.

Respiratory symptoms are prominent in these patients and have been the subject of much study. No intrinsic pulmonary or cardiac abnormality has been demonstrated, despite which there is more rapid and more shallow breathing even at rest. Dyspnea is easily induced, and there is poor ability to hold the breath. Some of these patients while at rest have sudden attacks of overbreathing, producing the hyperventilation syndrome. Wood[9] noted that patients complaining of dull precordial aching pain had little movement of their diaphragm and did most of their breathing with the intercostal muscles. Friedman[7] was able to induce this type of pain by hyperventilation and to abolish it by placing an adhesive strapping or cast over the upper two thirds of the left chest. These findings suggest some difficulty in the higher nervous centers in the coördination of the breathing mechanism.

Patients with neurocirculatory asthenia show poor performances in muscular work and quickly develop breathlessness, sweating, palpitation, flush, and fatigue. With moderate work there is greater pulmonary ventilation and higher blood lactate concentrations than in controls.[8] Maximum effort is briefer than it is in controls.[8] There is high oxygen consumption in the recovery period.[13] Some authors[8] regard these data as evidence of abnormal aerobic metabolism. It is not clear whether these findings occur only in patients with neurocirculatory asthenia or whether they are related to lack of training, poor health, or to the emotional state of the patient.

In a simple muscular test it was found that the patients were unable to perform in a smooth coördinated fashion, but rather with "jerky, trembling, hypertonic movement which obviously was causing the expenditure of a disproportionate amount of energy," leading to early cessation of effort due to much fatigue and pain. These patients at first exhibited excessive tachycardia and tachypnea, which abnormalities did not appear when the test was repeated the third time.[7] Thus, it would seem that poor muscular performance is related to the other evidences (cardiovascular, respiratory) of inadequately controlled autonomic activity, and is the result of impaired integration of voluntary action.

In addition to the fatigue which follows physical exertion, many of the patients complain of "always feeling tired," "without pep," "feel like lying down all the time." Frequently the patient's store of energy is lowest in the morning, improving as the day wears on. Although such fatigue is common in persons who are tense, worried, or upset for obvious reasons, it must be recognized that the underlying emotional or nervous reason may be obscure and unknown to the patient.

This lack of insight applies also to the gastrointestinal symptoms. Those occurring frequently are loss of appetite after a few mouthfuls of food, epigastric heaviness and fullness, "gas," vomiting, diarrhea, and cramping. These are no different from the symptoms of patients with anxiety neurosis, and indeed it is believed[7,8] that the two illnesses may be variants of the same disorder.

It should be emphasized that at times the presenting complaint will be headache or vague muscular or joint pains. Further study of the patient will then reveal the typical findings of neurocirculatory asthenia. The pathogenesis of these symptoms is unknown.

Another prominent symptom is giddiness. This is not a true vertigo, but rather a feeling of lightheadness or of faintness. It occurs most commonly after hyperventilation or when the patient assumes the erect position. The exact mechanism for its appearance is not known, although cerebral anemia secondary to pulmonary and systemic vasoconstriction has been postulated as the probable cause.[7]

In patients with anxiety neurosis and with neurocirculatory asthenia sudden attacks of exaggerated autonomic activity occur. These have been called "episodic neurogenic discharge." Such discharges appear as cardiovascular, respiratory, or peripheral neurogenic episodes, and occasionally as syncope. The latter seems to be a form of carotid sinus syncope of the central variety. These episodes may occur separately or together.

As mentioned before, there has been much comment on the psychiatric aspects of this disease, yet its essential character is far from clear. Friedman[7] has compared patients with acute and chronic anxiety neuroses, visceral neuroses, and neurocirculatory asthenia, and has been struck with the marked similarity in personality reaction. He notes "a tendency to mental and physical immobility, a diminution in emotional range, difficulty in concentration and perseverance, disinterestedness and unawareness in certain environmental conditions, partial loss in memory function, and strange reluctance to consider themselves as psychiatric casualties."

"War neurosis (acute anxiety neurosis) with somatic and visceral elements was found to be identical with chronic functional cardiovascular disease except for its violent exaggeration of those psychiatric elements which in chronic functional cardiovascular disease were somewhat subdued." Close scrutiny revealed a high incidence of the same somatic and visceral phenomena in each of these groups of patients. In the chronic varieties there was a strong familial, possibly hereditary background, plus a previous history of NCA symptoms. This was absent in the acute cases. The major difference between the patient with chronic anxiety neurosis with somatic and visceral components and the patient with neurocirculatory asthenia was that the former emphasized his psychiatric difficulties while the latter had a greater somatic and visceral reference, with particular emphasis on his cardiovascular system. Friedman[7] postulated a probable decrease or recession in the activity of certain cerebral centers as the explanation for the psychiatric findings. Such a cortical recession combined with inadequate control of autonomic centers could explain these illnesses.

DIAGNOSIS

It is this lack of balance between cortical function and hypothalamic activity with cardiorespiratory reference which is the major criterion in the diagnosis of neurocirculatory asthenia. "Episodic neurogenic discharge" is almost invariably present. Recently Cohen[8] has described a test which may be of value in establishing the diagnosis of NCA. It consists of testing the level at which the patient winces when exposed to a heat stimulus. Patients with NCA react at a lower level of heat than do controls, those patients with the complaint of nervousness reacting at the lowest levels. Another procedure, which is easily done without special apparatus, has been introduced by Friedman.[7] "It consisted of asking the patient to hold his breath as long as he could. The time was observed and recorded. After a period of 3 minutes the patient's pulse rate was observed and recorded. Then he was asked to breathe deeply 45 times in 45 seconds. At the end of this time, he was asked to hold his breath again as long as he could and his pulse was again observed and recorded." A normal person will have a gain of 30 to 113 per cent in breath-holding ability after hyperventilation, without undue acceleration of his pulse rate. In those patients with NCA having easily induced dyspnea the breath-holding after hyperventilation not only will increase less than 30 per cent, but often will be less than it was at the start of the test. There is also a marked increase in pulse rate after the test. Breath-holding time after the test divided by breath-holding time before the test will give a ratio called the hyperventilation index. Normal values range from 1.30 to 2.13, even in the presence of organic disease of the heart and lungs, whereas, in NCA patients with dyspnea, values of less than 1.30 are found. Such a test is of value in assessing the presence of NCA in patients with organic heart or pulmonary disease.

There are a number of situations in which the diagnosis of NCA will be suspected. In the patient convalescing from almost any illness evidences of autonomic imbalance may appear, such as easy breathlessness, sweating, and palpitation. However, the neurotic changes in personality will be absent unless the patient's emotional reaction to his recent illness has served to precipitate a neurosis. Infectious disease will be suspected in the patient with low-grade fever, anorexia with weight loss, fatigue, and sweating. Exclusion of active tuberculosis or of brucellosis may require much study. Negative findings for these diseases plus the presence of the personality disorder already described permit the diagnosis of neurosis or NCA.

It is in relation to the question of the absence or presence of chronic organic heart disease that the most common need for the recognition of NCA occurs. True anginal pain may occur precordially but almost invariably has a substernal oppressive component and is induced by emotion, exertion, increased intra-abdominal pressure, and tachycardia. The nature of the pain in NCA is different, as mentioned before. The greatest problem arises in the patient who has angina pectoris or who is convalescing from an acute myocardial infarction. Such a patient may exhibit precordial stabbing pains or ache. In addition to the fear which is a component of angina he suffers anxiety and fear with every precordial twinge and will often consume large numbers of nitroglycerin tablets in a mistaken effort to relieve himself. The differentiation between these two types of symptoms is of importance not only to the physician's evaluation of the status of the heart, but the patient must be apprized of the true nature of his neurotic complaints and the occurrence of these predicted and anticipated for him. In this way his fears are minimized and the establishment of a cardiac neurosis prevented. This applies similarly to patients who have recovered from congestive failure and in whom overbreathing may be a prominent symptom.

At times acute myocardial infarction will be suspected in a patient who has severe hyperventilation, cold, blue, clammy hands, and profuse axillary sweating, and who collapses. An electrocardiogram taken promptly may show inverted T_2 and T_3. Such findings are known to occur after hyperventilation, but are transient, as will be borne out by their disappearance by the following day. The white blood cell count and sedimentation rate remain normal, and the positive features of NCA can be elicited. Breathlessness, palpitation, and precordial pain occurring in a patient with a functional murmur are often misinterpreted by the physician as indicating organic heart disease. Here again, much care and effort must be used in telling the patient of the existence and significance of the murmur after the evidences of autonomic imbalance are properly evaluated.

There are certain endocrine disorders in which the question of the diagnosis of NCA may arise. In hyperthyroidism the active mentality, the warm moist hands, the much higher basal metabolic rate, and the response to antithyroid drug therapy serve to indicate the proper diagnosis. The low basal metabolic rate, high blood cholesterol, low amplitude complexes in the electrocardiogram, and response to thyroid medication aid in distinguishing the patient with hypothyroidism from the tired, cold-intolerant victim of NCA. Perhaps NCA is most closely simulated by hyperinsulinism, with sweating, trembling, cold, clammy extremities, dilated pupils, and palpitation. However, the response to intravenous glucose, the hypoglycemic blood sugar levels after glucose tolerance tests, and the absence of the neurotic changes in personality differentiate this illness from NCA. The rare pheochromocytoma is characterized by episodes of sudden tachycardia, marked rise in blood pressure, sweating, and increased respiratory rate. However, the blood pressure rise is much higher than occurs with NCA, can often be induced by pressure or massage at the costovertebral angles, or by the administration of tetraethylammonium chloride.

The prognosis in this disorder depends on whether it is acute or chronic. In the acute form recovery will be complete provided certain conditions are met, viz., a normal personality and absence of psychomotor stigmata prior to the illness, the precipitating factor of severe nature and of several days' endurance, and no persistent "cortico-hypothalamic imbalance."[7] In the chronic variety complete recovery probably does not take place, although phasic improvement may be attained.

The therapy of chronic NCA has been far from successful. Graduated exercises are helpful in the convalescence of patients recovering from infection or trauma but not in patients with NCA. Psychotherapy has not made any great conquests so far in the treatment of this disorder. The physician is left with the task of making clear to the patient the nature of his illness and preparing him to bear its burden. Only by careful examination, after which the pathogenesis of the disorder is explained and the episodic character of the symptoms and signs predicted, can the physician hope to gain the confidence of the patient. The latter has to be repeatedly and continually assured of the functional, nonorganic character of his illness. Induction of symptoms by giving the patient benzedrine or caffeine, or by hyperventilation, will often help reinforce the fact that

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FLAT FEET IN INFANTS

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IN RECENT years there has been a growing interest in the feet of infants and children. Obstetricians, pediatricians, nurses and parents have been giving critical attention to minor deformities of the feet, and no longer is treatment being deferred until the baby starts to walk. A congenitally flat foot can be detected as soon as the infant is born and the second or third postnatal day is the most effective time to start treatment.

A well nourished baby's foot appears flat because of a plantar pad of fat, which lying under the arch has the function of supporting it during early orthograde ambulation. This has led to the erroneous conclusion that there is no well defined arch until walking is started. True, the plantar fat pad does move back toward the heel as the foot grows and weight-bearing increases, but the skeletal formation of the infant's foot is similar to that of the adult in so far as the arches are concerned.

The appearance of the foot itself is not as important as the relationship between the foot and the leg. Outward rotation or pronation of the foot is usually due to weakness of the tibialis muscles and relaxation of the ligaments on the medial side. Since static deformities of the feet do not develop until walking is started, such weakness must be presumed as diagnostic of congenital flatfoot. One or both feet may be involved, and the relaxation may be so great as to allow contact of the outer border of the sole with the side of the leg. If the affected foot is turned inward into a varus position no resistance is encountered, but the foot soon regains its habitual attitude of valgus. If the infant attempts to turn the foot inward, the slightest resistance will prevent completion of the movement. Because the foot is habitually kept turned out, the inner side of the ankle appears more prominent than the outer. The medial surface of the leg of a congenital flatfoot appears concave due to underdevelopment of the tibialis anticus muscle, and gives the appearance of bowing of the tibia. Because of the relaxation and ease with which the foot can be moved, congenital flatfoot is not as dramatic a deformity as congenital clubfoot, and this explains why it is often not recognized until walking is started (figure 1-A).

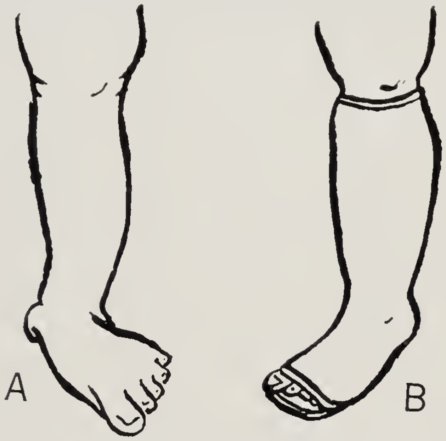
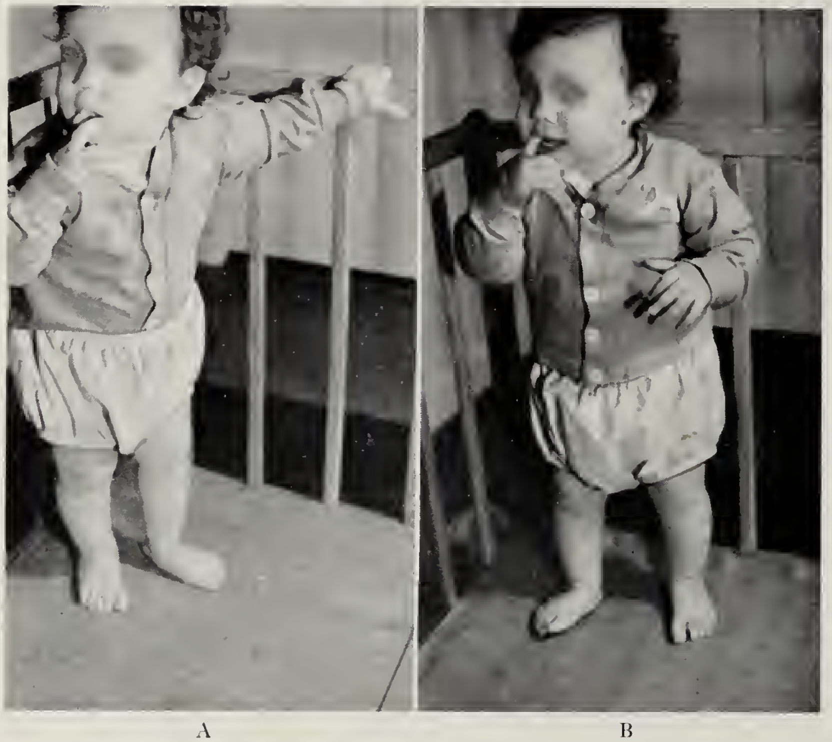


FIG. 1. (A) Position of foot in valgus characteristic of congenital flat-foot. (B) Foot in corrected position held by plaster of Paris boot.

Theories as to etiology are purely speculative. A plausible explanation is that, as the foot rotates from the varus to the valgus position during the developmental period in utero, a mechanical block may hold the foot in valgus and thus cause stretching of the muscles and ligaments on the medial side. That there is no inherent paresis or paralysis is apparent from the fact that treatment is effective in a relatively short period of time.

The principles of proper treatment are:

1. Correction of deformity.



A B

FIG. 2. (A) Note pronation of feet when standing on a smooth surface. (B) On a semiresilient, irregular surface the feet assume a correct position.

2. Maintenance of correction until normal balance is achieved.

3. Observation until normal walking habits are learned.

The treatment of congenital clubfoot with corrective plaster boots has been eminently satisfactory despite the marked resistance which must be overcome. Equally gratifying results have been achieved with plaster boots in the treatment of congenital flatfoot. A light plaster of Paris boot is applied as soon as possible to hold the foot in complete varus (figure 1-B). This should be replaced after a week in a very young infant because growth is very rapid. The second boot may be left on about 10 days. Some improvement may be noted after the removal of the second plaster, but treatment should be continued for a month. In most cases this is sufficient, but observation should be maintained until walking is started. If there is a tendency for the foot to revert to its valgus position, a corrective plaster boot should be applied and left on about 2 weeks. A satisfactory correction is achieved when the foot is held habitually turned in slightly, and when moved from varus to valgus this offers the normal resistance of a well-balanced pedal extremity.

The early days of orthograde ambulation are very important. Flat floors or the smooth surface of a playyard tend to encourage the use of the feet in a passive attitude and weaken the intrinsic muscles and ligaments of the arch (figure 2-A). To maintain the unaccustomed upright position on his legs the infant turns his feet out and spreads them apart. This causes the center of gravity to fall on the medial side of the foot and depresses the arch. If the floor is irregular or uneven, the foot automatically turns into a varus position so as to raise the arch and avoid too much contact of the sole with the uncomfortable surface. Thus a semiresilient irregular surface is the ideal one for stimulating the supporting muscles of the arch as well as developing the leg muscles which must lift and propel the weight of the entire body. The children of primitive man did not have smooth floors or paved roads. Very early their feet, bare of any covering, trod the irregular ground of their natural environment and developed strength along with the rest of the body. The American Indian has become the symbol of good feet and proper walking because his nursery floor was a pebbly path or a marshy meadow.

Weak, painful feet can be a source of con-

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GASTRIC CANCER TODAY

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ANNUALLY in the United States 40,000 persons die of gastric cancer. This figure can be expected to rise because of the enlarging population and the lengthening span of life unless the medical profession develops an earlier and more dependable method of diagnosis or a more effective means of treatment.

FREQUENCY

Cancer is second to cardiovascular disease as the commonest cause of death in this country. Between 25 and 30 per cent of all cancer deaths are due to gastric cancer. The figures of New York State quoted a year ago by Haagensen[1] of the Presbyterian Hospital showed that in the male the stomach ranked second to the skin as the most frequent site of cancer. In the female the stomach held fifth place, being surpassed by the breast, cervix, colon and skin.

Bassler and Peters[2] of New York recently wrote that malignant tumors accounted for 89 per cent of tumors of the stomach, carcinoma 85 per cent, and sarcoma 4 per cent. The remaining 11 per cent are benign tumors. At a meeting of the Medical Society of the District of Columbia last fall, Geschickter stated that malignant tumors comprised 11 per cent of all lesions of the stomach. Gastric cancer afflicts men 3 times more often than women. It usually occurs in persons over 40 years of age.

SYMPTOMATOLOGY

The symptoms of early gastric cancer follow the pattern of those of other internal or deep-seated malignant growths. There are often no early symptoms. The first symptoms are frequently not early. When the disease does become manifest there may be great variability in its symptomatology. The first indications of gastric cancer may be so trivial or bizarre that they are ignored by the patient and the physician, and thereby the opportunity of curability is lost. The first symptoms may be attributable to metastatic lesions rather than to the primary growth in the stomach.

The symptoms may be those of obstruction of the pyloric or cardiac orifices. They may simulate peptic ulcer or be those of hemorrhage so severe as to necessitate transfusion. Any gastric lesion which resists treatment for 4 to 6 weeks, especially in a person over 40 years of age, should incite one's curiosity as to the possibility of malignancy. Cases have been cited, however, in which medical therapy has temporarily relieved the symptoms of gastric cancer. Loss of weight, cachexia, anemia, a palpable abdominal mass, prominent supraclavicular nodes (Virchow's node), an enlarged liver, and Blumer's rectal shelf are all late manifestations. In short, there are few early symptoms and none are pathognomonic of the disease.

In an analysis of 795 gastric cancers at the Memorial Hospital of New York City, Pack and McNeer[3] reported that the average duration of symptoms of all cases was 9.7 months. It was interesting that the symptom duration of those who survived 5 years was a little greater (9.9 months) than those who lived less than 5 years (9.3 months). In a 10-year survey of the records of the Massachusetts General Hospital Welch and Allen[4] found an average delay of 5 months between the onset of symptoms and surgery. They concluded the best method now available to increase cures was to reduce this period of delay.

From our present knowledge of the symptomatology of gastric cancer we can draw but one conclusion, namely, that any gastric symptoms in a person over 40 years of age call for thorough investigation.

DIAGNOSIS

All of the laboratory procedures are helpful and support the diagnostic picture, but none are completely dependable. A diminution of gastric acidity, the presence of occult blood in the gastric contents and feces, gastric retention, and anemia are significant but not constant and not always early findings.

Gastroscopy is likewise helpful in some instances, but this method misses many lesions especially at the cardiac orifice and in the fundus. I have not found its percentage of accuracy quoted by any recent authors. It depends in great part upon the skill and experience of the examiner.

Examination of stomach washings for cancer cells, as advocated by Papanicolaou in 1946, is another helpful but not dependable test. A decision must be based upon a few isolated cells rather than upon a piece of tissue showing cell pattern. Even with careful collection of the washings and an experienced microscopist, Fremont-Smith, Graham and Meigs[5] of Boston claim the test to be positive in only 50 per cent of cases.

Photofluorography, a more recent diagnostic method, has been used in examining large numbers of symptomless patients in hopes of discovering early cases. Rigler[6] of Minneapolis concludes it is not very accurate. I am informed by experienced radiologists that it is not as satisfactory as X-ray examination.

Peritoneoscopy is of no value in the early diagnosis of gastric cancer, according to Sweet[7] of Boston. He believes it may aid in predicting operability or metastasis.

X-ray with fluoroscopic examination remains to be the most dependable laboratory aid. Even in this test the technic and the experience of the radiologist account for some errors. Sweet[7] states its accuracy does not exceed 90 per cent in the best of hands. Although X-ray examination misses fewer stomach lesions that any other test, it is frequently impossible to determine whether the lesion is benign or malignant. Fremont-Smith, Graham and Meigs[5] reported 14 per cent of gastric ulcers which were radiologically and clinically considered benign proved to be malignant. And conversely, 17 per cent of ulcers believed malignant by the same methods proved to be benign.

One other diagnostic method, exploratory operation, should be resorted to in instances where other procedures are inconclusive. It also may not be 100 per cent accurate, since most surgeons have had the experience of being incorrect even upon direct vision and palpation. However, biopsy and frozen section examination are easily obtainable and will in most instances give an accurate diagnosis.

The laboratory procedures should not be undervaluated, but because of discrepancies in all of them, it is usually necessary to employ more than one test to obtain evidence sufficient for diagnosis. One author has stated that gastric cancer is not detectable by the currently used methods of examination at a stage when the only reasonably hopeful treatment now applicable, surgical excision, may be successful. There is no diagnostic routine that can be practicably applied to large groups of people in order to increase the percentage of earlier diagnoses. We must continue to depend upon (1) paying more attention to the first gastric symptoms in the older age groups, (2) more frequent use of the present diagnostic procedures, and (3) the encouragement of periodic health examinations.

TREATMENT

The only curable treatment is gastric resection, partial or total, depending upon the location and extent of the cancer. Theodor Bilbroth, a Viennese surgeon, is credited with the first successful partial gastric resection in 1881. Total gastrectomy is also not new. It was first performed in man by Phineus Connor of Cincinnati in 1884. His patient died on the table. However, in 1897 Carl Schlatter of Zurich performed the same operation, and his patient survived 14 months, when recurrent cancer proved fatal.

These formidable gastric resections have in the past 10 to 12 years become more widely applied and with greater success because of more frequent usage of blood transfusion, increased physiologic knowledge of pre- and postoperative care, advanced anesthesiology, and improved operative technics.

Bell[8] of San Francisco gave an operability rate of 69.2 per cent in 540 cases, of which 34.4 per cent of the total involved resection. In a 10-year review Welch and Allen[4] claimed 75 per cent of gastric cancers are now being operated on. State, Moore and Wangensteen[9] of Rochester reported 586 cases with an operability rate of 76.3 per cent and a resectability rate of 52.2 per cent. Scott and Longmire[10] of Johns Hopkins found resection possible in 63 per cent of patients operated on. Pack and McNeer[3] of New York reported that between 1942 and 1946 their operability rate had increased to 82.7 per cent, and that 48.1 per cent of the stomachs were resected.

Not only are more gastric cancers being subjected to operation and some form of gastric resection, but the mortality rates in recent years are decreasing. One of the early reports in 1929 by Finney and Rienhoff[11] of 67 total gastrectomies for cancer showed a mortality of 53.8 per cent. Pack and McNeer[3] reported the mortality between 1942 and 1946 to be 9.8 per cent for subtotal and 36.4 per cent for total resection, with 38.9 per cent for resection of the cardia. State, Moore and Wangensteen[9] found that in the last 10 years their operative mortality was 15 per cent for subtotal and 30 per cent for total resection. Scott and Longmire[10] claimed a mortality rate between 1944 and 1949 of 13 per cent for subtotal and 10 per cent for total resection and 37 per cent for esophagocardiectomy. Eastman and Cole[12] of Chicago gave a mortality of 11.4 per cent for subtotal and 14.2 per cent for total resection. Bell[8] reports that in the past 5 years his operative mortality has decreased from 22.2 to 11.9 per cent. Welch and Allen[4] claim a mortality of 3 per cent for subtotal and 11 per cent for total resection.

The principal objectives in preoperative care that have helped to lower mortality are: (1) complete physical examination including urinalysis, nonprotein nitrogen, blood count, serum protein and chloride, (2) correction of anemia by transfusion, (3) correction of dehydration, hypoproteinemia and hypochloremia with parenteral solutions, (4) correction of vitamin deficiency with large doses of vitamins, and (5) estimation of the degree of obstruction. The important features of postoperative care are: (1) ample fluids to maintain a daily urinary output of 1,000 c.c., (2) elimination of salt for 48 hours, (3) suction drainage of the upper gastrointestinal tract, (4) maintenance of a high caloric intake with parenteral fluids and artifical feedings through a tube if possible, and (5) frequent turning and coughing, leg exercises, deep breathing, and early ambulation.

Eastman and Cole[12] report that 40 per cent of their mortality was due to cardiac, pulmonary and renal complications. The remaining 60 per cent of deaths from operation was the result of avoidable complications such as anastomotic and duodenal leakage, hemorrhage, intestinal obstruction and wound infection with dehiscence.

FINAL RESULTS

Operability or resectability does not imply curability. The long-term results of gastric cancer are still gloomy. Time has not yet permitted a fair appraisal of the final results of the increasing operability and resectability rates. At present the over-all 5-year survival rate is quoted at 5 to 7 per cent. Sweet[7] states that 20 to 30 per cent of patients operated on will survive 5 years.

Many factors are believed to influence the prognosis and final results. Pack and McNeer[3] analyzed the Memorial Hospital records of 795 gastric cancers and showed to what extent some of these factors influenced the end results:

1. The delay from the onset of symptoms to surgery is of greatest importance.

2. Thoroughness of operation aimed at eradication of the disease comes next. Vision and palpation will often not decide the limitation of cancer spread, whereas frozen section examinations during surgery may determine that more tissue should be removed and thereby make the difference between cure and recurrence. It has been demonstrated that the areas of early invasion of gastric cancer are (a) the perigastric lymph nodes along the stomach curvatures and in the gastrohepatic ligament, (b) the first inch of the duodenum, and (c) the large omentum. Gastric resection should include these areas.

3. Results of study of the gross lesions showed the 5-year survival rate following gastrectomy to be 100 per cent for focal cancer in situ; 33.9 per cent for ulcerating lesions; 26.3 per cent for polypoid lesions; 25 per cent for infiltrating lesions; and 22.7 per cent for annular cancer.

4. Microscopic grading revealed the 5-year survivals for grade 1 after gastrectomy to be 100 per cent; for grade 2, 41.7 per cent; for grade 3, 30 per cent; and for grade 4, 16.7 per cent.

5. A study of lymph-node metastasis showed that of those patients with proven positive nodes 24.2 per cent lived 5 years after gastrectomy and that of those with negative nodes, 42.8 per cent survive 5 years after surgery.

6. Of patients with serosal penetration resulting in perforation or fixation to adjacent organs (pancreas, liver, colon, spleen) 50 per cent lived 5 years following gastrectomy.

7. Gelatinous cancers gave a 5-year survival after radical operation of only 22 per cent.

Pack and McNeer[3] felt that their study and figures argued for more radical surgery even with factors present which have formerly been taught to be hopeless. They argued resection in spite of sacrificing the entire stomach, involvement of the esophagus, metastasis to perigastric lymph nodes, or fixation to adjacent organs. Some surgeons have swung to ultraradicalism and in addition to the stomach have removed all or portions of other organs (esophagus, spleen, colon, pancreas, liver) which contain metastatic lesions.

PALLIATION

In the past 12 years the trend in gastric surgery has been toward radicalism not only in curative measures for both cancer and ulcer but also in operative procedures aimed at palliation. Welch and Allen[4] make the statement that the best palliative operation for cancer is subtotal gastrectomy. Some physicians are beginning to believe that gastroenterostomy is an operation of the past. In a recent follow-up study of 532 cases of duodenal ulcer, Gray and Williams[13] of Rochester reserve a place for gastroenterostomy and cite definite criteria for its employment. In cancer, removal of the primary tumor by subtotal gastric resection will not relieve the toxemia of the cancer in the presence of advanced metastatic lesions. In the incurable patient with obstruction the palliative operative procedure with less risk is still indicated.

SUMMARY

Cancer is the second disease killer in this country. Gastric cancer is the second most frequent cancer in the male. One fourth of cancer deaths are due to stomach cancer.

The symptoms are greatly variable, usually late, and not pathognomonic. Any gastric symptom in a person of 40 years or over may signal cancer. The duration between onset of symptoms and surgery is too long. All of the present laboratory procedures contain discrepancies. X-ray examination is the most dependable test. There is room for a more reliable and earlier diagnostic procedure. Exploratory operation should be used in doubtful cases and used earlier.

Radical surgery offers the only cure and is being used in an increasing number of cases with decreasing mortality. The end results of gastric cancer are still very low. It is hoped that the increasing application of operation and gastric resection will improve the final survival rate. There is still a place for palliative gastroenterostomy.

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RECENT ADVANCES IN CANCER

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MALIGNANT NEOPLASMS OF THE CENTRAL NERVOUS SYSTEM*

Part Two

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TUMORS OF THE SPINAL CORD

Growths involving the spinal cord are being detected with greater frequency and at an earlier stage than they were formerly. This is true to the extent that it is rare nowadays to encounter a patient who has reached the end stage of his illness from compression of the cord by a tumor. Although numerically less frequent than brain tumors, neoplasms of the spinal cord offer a greater opportunity for satisfactory recovery when treated adequately and early.

The diagnosis of an expanding lesion of the spinal axis can often be made by the history alone. The story of a progressive paralysis of the extremities along with a corresponding loss of sensation and a disturbance in the urinary and rectal sphincters should suggest a tumor of the spinal cord. The syndrome is almost always preceded or accompanied by pain arising in the vertebral column or radiating out from it. The presence of an intraspinal lesion may be established by physical and neurologic examination as well as by appropriate laboratory studies.

Signs and Symptoms

For the purpose of orientation it should be remembered that the spinal cord is suspended in the vertebral canal and is surrounded by a column of cerebrospinal fluid and by the meninges. The spinal nerves take exit through the foramina between the vertebrae at corresponding levels in the cervical, thoracic, lumbar and sacral regions. In the adult the cord terminates at the level of the first lumbar vertebra, and below this point the vertebral canal is occupied by the roots of the cauda equina. Intraspinal lesions give rise to characteristic motor signs depending on the site of involvement. Thus compression of the cord itself results in spastic paralysis of the limbs below the level of the tumor. On the other hand, a growth invading the cauda equina results in a flaccid paralysis of the lower extremities. In addition, sensory alterations of varying extent occur below the level of the lesion. Sooner or later difficulties in vesical and rectal control become manifest.

Depending on their origin, neoplasms of the

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*Part One, Tumors of the Brain, appeared in the December, 1949 issue of *The Cancer Bulletin.*

spinal axis may be considered as extrinsic or intrinsic in type. In the former case, the growth may arise in the vertebra, in the spinal epidural space, in the subarachnoid space, or from a spinal root. Intrinsic tumors begin in the substance of the cord or from the filum terminale in the cauda equina. Pain from irritation of the spinal roots appears early with tumors which arise on the outside of the spinal cord. As the neoplasm enlarges and begins to press on the cord, symptoms and signs referable to the motor and sensory tracts are added to the clinical picture. When the growth arises primarily within the spinal cord, the same symptoms and signs occur but in reverse order. Thus motor and sensory involvement occurs first and spinal root pain develops later.

Traction or pressure on the spinal roots gives rise to characteristic pain. The distress is sharp and shooting, often radiating out along one of the spinal dermatomes on the trunk or the extremities. It is usually aggravated by coughing or sneezing or in fact by any strain which increases intrathoracic or intra-abdominal pressure. Often the root pain becomes worse at night after the patient has retired and he discovers that he can obtain relief only by sleeping in a chair or by walking about. When spinal root pain is referred out to the chest or abdomen it may be mistaken for pleurisy, cardiac angina, gallbladder disease, or appendicitis. Failure to recognize referred pain from cord neoplasms has sometimes led to needless surgical exploration of the thoracic or abdominal cavities. Referred pain from root irritation may furnish the clue to the exact level of the intraspinal tumor. Careful percussion of the vertebral column often elicits an area of tenderness which is maximal over the site of the growth. Likewise percussion of the spine at a distance from the suspected site may cause pain at the location of the lesion.

Compression of the spinal cord or the cauda equina usually produces alterations in motor function before giving rise to sensory changes. The syndrome of upper motor neurone impairment from compression of the cord results in an increase of the activity of the tendon reflexes, a loss of abdominal reflexes, and the appearance of a Babinski sign. The patient notices that his limbs are stiff and that his voluntary movements are dampened by the spasticity. In contrast, a growth in the cauda equina results in the syndrome of lower motor neurone involvement. The lower extremities become hypotonic, the tendon reflexes disappear, and the muscles begin to atrophy. The abdominal reflexes are retained, and no Babinski sign can be elicited. The patient complains of severe weakness in the lower extremities so that he cannot stand or walk without his limbs giving way beneath him.

Sensory alterations develop slowly and are often incomplete. Changes in pain and temperature appreciation may be noticed first. The patient may discover that one of his extremities has become less sensitive to pain or that he has lost the ability to detect temperature differences in the affected member. Pressure on the dorsal columns of the cord results in disturbances of muscle, tendon and joint sensation. This causes the limbs to become ataxic so that even the most ordinary movements are incoördinate. The gait becomes undertain and drunken in type. In the early stages of cord compression, disturbances in the appreciation of light touch are not noticed usually. The reason for this is that light touch is transmitted over several pathways in the spinal cord.

Disturbances in sphincteric control appear early. This is especially true in the case of the urinary bladder. Vesical dysfunction may be manifested by frequency, inability to retain urine when the bladder is full, or by bed-wetting. When the rectal sphincters are affected, severe constipation or accidental defecation may result. Generally speaking, alterations in bladder and rectal function are more complete with lesions at the lower end of the spinal axis, i.e., the cauda equina. In male patients, sexual impotence may be the first sign of compression of the spinal cord or cauda equina. A lesion in the cervical cord sometimes gives rise to painful priapism.

Spinal Puncture

Encroachment of the spinal canal by a tumor results in partial or complete block of the spinal subarachnoid space. The degree of obstruction can be detected by the Queckenstedt test. Following a lumbar puncture and before allowing any fluid to escape, a water manometer is attached to the spinal needle. Under normal circumstances the simultaneous compression of both jugular veins results in a prompt rise in the level of the fluid in the manometer. When the pressure on the jugular vessels is released, a prompt fall to a normal level should occur. In cases of a partial block, the fluid in the manometer rises slowly, and when jugular compression is released, the fluid level falls slowly. When complete obstruction is present, jugular compression produces no alteration of movement of the fluid in the manometer. Intraspinal neoplasms usually cause an increase in the quantity of protein present in the cerebrospinal fluid. Elevations in the quantity of spinal fluid protein may vary from 80 to 1,000 mg. per cent. A significant increase in the amount of protein renders the spinal fluid xanthochromic, and this usually indicates an advanced stage of spinal subarachnoid block. As a rule, the cell count of the spinal fluid is normal or nearly so.

Roentgenographic Studies

X-ray studies of the vertebral column may reveal erosion of the laminae or widening of the pedicles at the site of the growth. The lesion may be further verified by myelographic studies with an opaque oil. This test is carried out by injecting 3 to 6 c.c. of iodized oil into the subarachnoid space. After placing the patient under the fluoroscope on a tilt-table, the outline of the moving column of oil is watched as the table is inclined in varying degrees from the horizontal direction. In cases in which the tumor has resulted in total obstruction the oil becomes arrested at the lesion, and an X-ray film is made for confirmation. With a partial block the defect in the spinal canal becomes outlined by the opaque oil, thereby making it possible to estimate its size and length.

Pathologic Considerations

Approximately 20 per cent of the neoplasms involving the vertebral column and spinal cord are malignant. This includes primary growths as well as metastatic tumors. Primary malignant growths are rarely observed in children or in the aged.

Extrinsic primary tumors include chordomas and osteogenic sarcomata. Chordomas arise from remnants of the notochord in the centrum of the intervertebral disc. The usual site of origin is from the lumbar spinal column or the sacrum. They are slow-growing tumors which are difficult to eradicate because of their tendency to invade the laminae and the bodies of the vertebrae. Osteogenic sarcomas usually arise as single lesions in the lamina. They are invasive and tend to recur and to metastasize to other bones as well as to the soft tissues. Primary sarcomatous lesions in the spinal epidural space are sometimes encountered. Chief among these are Hodgkin's disease and lymphosarcoma. These tumors are slow-growing and may remain confined to the epidural space for a long time. In their growth they may spread up and down the length of the spinal canal for a considerable distance.

Intrinsic primary tumors of the spinal cord bear a close histologic resemblance to many of the primary growths arising in the brain. Intramedullary tumors such as ependymomas, astrocytomas, and spongioblastomas may be observed. On the whole, these neoplasms, although histologically malignant, do not show the manifestations of rapid growth exhibited by their counterparts in the brain.

The most important of these intrinsic lesions are the ependymomas. These tumors arise from ependymal cells lining the embryonic central canal of the spinal cord. They may appear in the substance of the cord or at the lower end of the cord in the filum terminale. Ependymomas within the spinal cord may grow throughout its length for a considerable distance. They often undergo cavity formation, becoming filled with colloidal fluid and giving the appearance of syringomyelia. Ependymomas arising in the filum terminale grow out among the roots of the cauda equina and gradually fill the lower end of the spinal canal. The canal may become widened by virtue of pressure from the tumor. In such cases, preliminary X-ray studies often furnish a clue to the real nature of the growth.

Metastatic tumors from the prostate, rectum, breast, thyroid gland and other organs frequently invade the vertebral column. These secondary tumors may involve any region of the spinal column after becoming distributed throughout this structure by means of the spinal epidural veins. Metastatic tumors remain confined to the epidural space and do not invade the dura. However, they often grow outward, producing destruction of the surrounding vertebrae.

TREATMENT

Unless there is roentgenographic evidence of tumor invasion of the vertebrae, it is often impossible to tell whether an intraspinal growth is malignant or not. Once the clinical diagnosis of a cord tumor has been established surgery should be undertaken without delay. Prolonged periods of waiting in the presence of compression of the spinal cord only compromises the patient's chances of recovery. It is true that after the lesion has been surgically exposed the tumor may be of such a nature that it can be only partially removed. Sometimes the most that can be accomplished is a simple decompression. However, in many cases a substantial portion of the tumor may be removed, so that the immediate surgical result will be satisfactory. Even intramedullary growths, though admittedly more formidable than the extramedullary ones, can be treated by a direct surgical attack. Thus, in the case of tumors within the cord which have become cystic, the cavity can be aspirated and drained. In some cases solid growths within the cord have been removed by a two-stage surgical procedure. At the first session, an incision is made along the dorsal midline of the spinal cord splitting the cord over the length of the tumor. Then at a second operation several months later the tumor will be found to have extruded itself out of its bed to a sufficient extent to allow removal.

Surgical treatment is not generally recommended for metastatic growths. However, laminectomy is performed in cases in which there is doubt regarding the nature of the lesion or when it becomes necessary to appease the patient's family concerning the presence of cancer. Because of the danger of sudden collapse of a vertebra from metastatic cancer, these patients should be confined to bed and should avoid weight-bearing.

Radiation therapy has been found to be beneficial in impeding the progress of malignant growths invading the vertebral column and spinal cord. In this respect lymphomatous tumors such as Hodgkin's disease have been found to respond the best, and survival periods of 5 to 7 years are not uncommon in patients with this type of tumor.

President's Page

PSYCHOLOGICAL PLAGUES

The Master of Evil,
Seeing that Man was content with his power over all living beings,
Sent upon him the plagues of invisible things
That turned his bowels to water
And his lungs to pus,
That made his wounds into sloughing caverns
And caused his women to suffer hectic deaths in giving birth to sons.

But Man had eaten of the fruit of the Tree of Knowledge,
And he came in due time to fight the invisible enemies
And to control these plagues. And he created machines
Whereby the strength and speed of his limbs were multiplied,
And his eyes and ears made keener;
And he fortified himself against the weather
And secured himself against hunger,
And depended no longer upon the sun alone for light.

The Master of Evil then called his three sons unto him,
And their names were Hurry and Flurry and Worry.
And he said unto them:
"Behold, Man has but newly devised ways
Whereby he not only escapes the plagues I send upon him,
But also avoids work,
And his days in the land are doubled.
Say now how you can defeat his advances and turn his prowess into misery."

And Hurry said unto his father,
“I can make Man hasten,
And he shall drive his machines so fast
That they shall quickly wear out,
And in the driving of them he shall himself lose the power of relaxation,
And his muscles shall be tired and know not how to let go.
And his hands shall tremble with weariness.”

“'Tis well,” said the Master of Evil,
“Go thou upon the Earth and cause Man to speed and speed
And mayhap some of his best and fastest may kill or maim themselves in accidents.
Pay heed to his brain
That he work it faster and longer.
Let him resume work before digestion begins and before elimination,
That his bowels may be clogged and his body burdened.”
And Hurry prepared to go forth.

Then said the father to his son Flurry:
“What canst thou do to vex this self-styled
Noble creation of the Heavenly Father?”

“I can work upon him through his stomach and his bowels
And his many and various organs,”
Replied Flurry.
“I can make his heart to turn over at an unexpected sound,
And his stomach to twist when a machine shall pass close to him.
I can raise his blood pressure when he comes in controversy with his equals
And drain the water from him when he bows to his superiors,
And he shall be as weak as milk.”

“’Tis well,” said the Master of Evil,
“Go thou upon the Earth and upset Man’s temper
And his digestion;
His bowels and his repose,
And do this slyly that he may suffer the pangs
And know not the cause therefor.
Chill thou his feet and inflame his face in the presence of his loved one;
Yea, though he speak the truth, let his hands run water and his tongue cleave to his palate in utter drought.
And let him harden his arteries and soften his brain communing with his fellows.”

Then he called Worry unto him,
And Worry was the greatest of his three sons,
And the Master of Evil knew it.
And he said unto him: “Thou hast heard thy brothers
And how they will despoil Man of his gains.
What canst thou do to make him regret his added span of life
And remember only the delights of his childhood?”

Then said Worry unto him: “All this of which my brothers have spoken can I do,
And more also in addition.
For I can work upon Man’s imagination,
That same power with which he develops his theories and his machines.
I can cause him to foresee events, both those that will happen and those that will not.
I can cause him to interpret falsely the actions of his friends
And of his family
And of the wife of his bosom.
I can cause him to fear decisions
And to brood over mischances.
And I can cause him to lose sleep in prospect of the morrow.”

"'Tis best of all," said the Master of Evil, "for sleep would defeat our every object.
Go thou upon the Earth and upset the biologic rhythm of Man's life and thou hast delivered him into my hands.
Pay special attention to brilliant youths
And bring them early to debauchery, insanity and suicide;
To married women
That they may become unhappy and unfruitful;
To married men
That they may sicken through apprehension
And seek oblivion in drugs and alcohol;
And to the aged
That they may yield the earlier under the attacks of my invisible hosts."

"Go ye three upon the Earth
And burn the candle of Man's life at both ends.
Spare not his frontal lobes where foresight
And ambition
And judgment
And self-control
Are centered,
But tire them out by constant work.
Turn the fruits of victory into the ashes of fatigue in his mouth.
Make him cry for the pastoral simplicity of the past
As he forces himself to the yet faster pace of the future.
Instill fear into his mind and bring disorder into the workings of his vitals.
Thus shall ye compensate for the lowly esteem in which we are fallen since Man gained power over natural forces.
Himself
He has not learned to control."

And so saying they departed and labored mightily and well among
The men of the Machine Age.

Walter Freeman

* * *Medicine at mid-century* * *

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The Medical Event of the Year in the Nation's Capital

Editorials

THE HOSPITAL BOARD OF TRUSTEES

At the 15th Annual Meeting of the American College of Hospital Administrators last year, two papers were read which provoked much comment, and so much interest was manifested that the address was printed and distributed among the membership.

In the ordinary connotation "Trustee" is synonymous with "Director," and for the purpose of this editorial they are so considered. To the title of one paper, "Are Hospital Trustees Needed?," the answer is an emphatic yes, provided they are capable trustees. These officers should be selected with the same care that a board is chosen for a bank or a university, because they represent, in a personal manner, the institution as it stands before the community. The Board is the hospital's sponsor. The type of the individuals who compose the board raises or lowers the standing of the institution in the estimation of the public, and its prestige can only be maintained by the lofty character of its membership.

They should not be chosen to serve in the role of a member because of an abundance of leisure, social position, or unlimited financial resources, but rather for their sound business training and reputation for integrity and capacity for work. Women with these qualifications make excellent members. The composition of the board should be a cross-section of the citizenry and should include, among others, a lawyer, a financier, a member of the clergy, an executive, a man engaged in a small business or employed in one, and above all, ample representation from the medical profession. All too often the staff of the hospital has a small voice in hospital management, a situation that overlooks the fact that the institution could not exist without patients and every patient must have a doctor.

Election or appointment of members of a board of a hospital should not be a casual matter. Before one is considered it should be ascertained that he is interested and that he will attend the meetings faithfully. Too often names are added merely to decorate what appears to be an impressive membership, while, if the truth were known, it is often impossible to have a quorum present at the stated meetings. What every hospital needs is an energetic and enthusiastic board, one that takes its responsibilities seriously without hope of any material compensation. It is possible to obtain such members, since in every community there are a large number of men and women deeply interested in this humanitarian endeavor.

The other paper which received much favorable comment was "As a Trustee Sees His Stewardship." This developed many sidelights in the duties of a trustee. A deep-rooted opinion seems prevalent that the chief duties of a director or trustee are to raise funds for the institution and to defend it when it is the target for captious criticism. The Board of Directors in its relation to the Administrator is somewhat analogous to that of the Congress to the President of the United States (as provided in the Constitution).

The Director should assist in obtaining able personnel in establishing and maintaining internal and external policies, promoting good public relations, and guarding the resources of the institution. He should take a keen interest in the financial affairs, scrutinize the reports, ask

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia

pertinent questions, and make appropriate suggestions concerning the major affairs of the hospital. He should accept appointments to special committees and make constructive reports. It is not necessary that he should be particularly vocal in the meetings, for it has been truly said that the empty vessel makes the greatest sound. As a member of the board he should protect the interests of the public as well as the hospital, because he is truly a liaison officer between the community and the hospital. For this and very much more, he will get no compensation and little thanks, but as a trustee he has received a liberal education in human behavior and understanding of the brotherhood of man, and this reward is enough.

C. S. W.

ANESTHESIOLOGY

Anesthesiology is, in a broad sense, the most humane of the medical specialties. Dedicated as they are to the relief of human suffering, members of this group are susceptible to the spoken word. However, acceptance of lecture material must be considered and tempered by judgment. The anesthesia student (as well as all others) must analyze carefully every point presented, and unless it fits logically into the body of knowledge he has and uses, it must be rejected. Nothing should be accepted or believed on authority alone. In the halls of learning statements of the mightiest professor should stand only on their own merit. There is no required anesthesia dogma. This skeptical attitude, however, must not blind one to the real light. The best student is he who must have proof and is coldly logical about analyzing and accepting it but is warmly enthusiastic about his fine, new concept after it has become his by such close examination.

Thinking more specifically about this speciality, one is impressed by the fact that most lectures are concerned with those matters which added to anesthesia make it into anesthesiology. The essential purposes in anesthesia are relief of pain for the patient and good relaxation to aid the surgeon in his exposure. The idea of including safety in its broad sense is borderline between simple anesthesia and anesthesiology. Deep concern for the maintenance of a relatively normal physiology during the artificial conditions of anesthesia is the hallmark of anesthesiology.

These facts have led many of our best specialists into a serious pitfall. No bystander can see another man's thinking. Unless his practice is equally as good as his theory the best result is not reached. Too many of our teachers can speak but not perform, and they don't stay at home working enough to become good clinicians. It is an important truth that the good anesthesiologist must, first of all, be a good technician. He must be able with his own hands to "deliver the goods" in the operating room, and he must be able to do the mechanical task artistically.

The technics by which anesthesia is accomplished are relatively few and simple. There is no excuse for the specialist being unable to do them well. However, he must realize that technics and agents are only a means to an end. They are unimportant in themselves but are significant only as they achieve a controlled result. This adds up to the most important point of all. In anesthesiology it is not what is done so much as who does it and, therefore, how he does it that counts. More and more the wise surgeon will require, and the informed layman will demand that anesthesiology under these concepts be available generally.

D. S.

HERNIA AND THE ABDOMINAL WALL

A protrusion of some portion of the abdominal contents through a weak spot or cleft in the abdominal wall is one of the commonest of surgical ailments. It is generally conceded that increased intra-abdominal tension produced by lifting or straining is the immediate exciting cause of the protrusion. Since the embryology of the inguinal region and the events in the descent of the testicles have been more carefully studied it is concluded there was a preformed sac or at least an abnormal relaxation in an existing cleft or opening. From time immemorial this condition has incapacitated men during the most active periods of their lives and thus has always excited the greatest surgical interest.

The scope of this article does not permit any lengthy or technical discussion of this subject, but I would like to emphasize the practical aspects of the problem by elaboration on two points, detection and prevention.

At The Hospital for Special Surgery in New York we were taught to examine a patient for a possible inguinal hernia by standing beside the patient and placing the fingers of one hand over the inguinal region. The other hand gives counter support to the lower back. In case the left inguinal area is being examined the left hand is used anteriorly and vice versa for the right side. The patient is asked to cough, and if an impulse is felt as if something were coming out and then slipping back again a hernia is present. A back flow of venous blood in the iliac or femoral veins produced by the coughing should not be confused with the impulse of a small hernia sac. Many times the patient is unaware of having a hernia because no swelling is noticed and he has experienced no pain. By this direct examination through the abdominal wall of the whole length of the inguinal canal one is much less apt to miss a hernia than by using one finger to palpate the subcutaneous inguinal ring. A patient may have an enlarged subcutaneous ring with a general relaxation of the structures of the inguinal region and still not have a hernia. On the other hand, the patient may have a small subcutaneous inguinal ring and no swelling and still produce a definite impulse on coughing in the area of the internal abdominal ring.

The presence of a femoral hernia sometimes presents a confusing picture. This is probably the most common hernia in the female and is by no means uncommon in the male. Because the femoral ring is comparatively small and is quite rigid, the tendency to incarceration is greater than in inguinal herniae. The omentum is perhaps the most frequently incarcerated abdominal viscus, and for this reason it is sometimes difficult to elicit an impulse on coughing.

In the detection and differentiation of incisional, umbilical and epigastric herniae it is wise to examine the patient in the standing position as well as while lying down. The circumference of the hernia ring can usually be outlined when the patient is lying down unless there is incarceration, when it may be difficult to accurately outline the ring.

The first point of practical consideration in prevention of herniae has to do with incisions. There are many types of abdominal incisions and they are all based on sound principles of anatomy and physiology, but many times a surgeon is obliged to lengthen or enlarge an incision to obtain adequate exposure. In all such cases the doctor should ask himself this question, "Am I cutting across muscles or am I severing nerves that will leave this patient with a weakened abdominal wall?" The rectus abdominus muscle fibers may be cut transversely with safety because of the strong anterior and posterior sheaths that support these muscles. The proper approximation of the anterior and posterior sheaths after the rectus abdominus muscles have been divided usually precludes any reasonable possibility of herniation through the incision. It is considered unwise to divide the fibers of the transversalis and the internal and external oblique muscles, since these muscle fibers do not have the strong fascial support the rectus abdominus muscle has. In a recent case an incisional hernia was found to be due to an unanatomical incision made in 1940 for the removal of the appendix and the gallbladder. This incision started in the right lower quadrant lateral to the border of the right rectus sheath and extended upward in a semicircular manner toward the ensiform process. The fascia and muscle fibers of the external oblique and especially the fibers of the internal oblique and transversalis muscles had been divided for a long distance, and how any surgeon could hope to avoid herniation through such an incision is beyond my comprehension.

In the prevention of herniae the proper closure and the wise choice of suture material are important. No hard and fast rule can be set down, because certain conditions alter the type of closure as well as the type of material used. As a general rule one should close an incision layer by layer, making sure that there is no undue tension on the tissues and that the tissues are not being strangulated by too large a bite or too tightly drawn sutures. It is important that peritoneum oppose peritoneum and fascia oppose fascia and that fatty tissue does not intervene. Sufficient relaxation of the abdominal wall is most essential during the closure of abdominal incisions. In cases in which drains are used in the abdominal cavity it is important that they make their exit through stab wounds and not through incisions whenever feasibly possible.

Because most incisional herniae are the end result of previous active infection in the incision, every precaution must be used to avoid infection. Here again, proper surgical technic plays a most important part. In case the wound does become infected adequate drainage diminishes the amount of tissue necrosis and thus lessens the probability of later herniation.

The natural resistance of the body should be maintained and normal physiologic functions protected in order to prevent delayed healing of incisions which increase the percentage of wound disruptions and subsequent herniation. This is accomplished by the correction of secondary anemias, prevention of avitaminosis, and securing an adequate intake of protein and caloric requirements.

Careful surgical technic while working inside the abdominal cavity without unnecessary handling of the viscera diminishes postoperative paralytic ileus with resulting distention which lessens the incidence of weakened incisions.

Many of the opinions expressed above are well known to the medical profession; others may not be too well known. This article was written with the express purpose of creating a better understanding between general practitioner and surgeon as to the over-all picture of herniae, which understanding may be beneficial to the patient.

J. Roscoe Creer, M.D., F.A.C.S.

CORRESPONDENCE

Washington, D. C., May 11, 1950

To the Editor of Medical Annals:

That was a fine meeting at the Medical Society building on May 3 when we were hosts to the Bar Association. It was a good start toward better relations between the doctors and the lawyers. In order to make it effective, however, we must follow up so that friendship may be cemented and made permanent. I hope the executive committee will consider the following thoughts I have on the subject.

1. Five members of our executive board should meet with 5 members of the Bar Association's executive board at luncheon once a month to consider complaints or criticism of members of either body and to make plans for better coöperation.
2. Invite the Bar Association to publish one or two articles each year on an appropriate subject in the *Annals* and arrange to have the Bar Association journal reciprocate the courtesy.
3. Arrange for one annual spring outing for the combined associations and invite selected members of the Judiciary and the executive committee of the Medical Society to be guests.
4. Arrange for one meeting of the Society to be known as "lawyer's night" each winter and one meeting of the Bar Association to be known as "doctor's night." Papers of mutual interest could be presented at these meetings.

Very truly yours,

James A. Gannon, M.D.

MANAGEMENT OF ACUTE HEAD INJURIES*

Head injuries may be classified as (A) open and (B) closed. Open injuries incur the risks of (1) hemorrhage and (2) wound infection. Closed injuries involve the risks associated with (1) immediate destruction of brain tissue (contusion, laceration, etc.) and (2) progressive damage secondary to (a) cerebral compression due to intracranial hemorrhage or edema, and (B) anoxia resulting from an inadequate airway.

For clarity, the treatment of open and closed wounds will be considered separately in this bulletin, but it is to be emphasized that often both are seen in the same patient and require consideration jointly.

Treatment of Open Wounds

The proper treatment of lacerations of the scalp consists of thorough cleansing, débridement and snug closure. As a first-aid measure, a compression bandage should be applied to control bleeding. Externally protruding foreign bodies should not be manipulated. When the patient's general condition permits and adequate equipment is available, the following procedure should be undertaken:

1. Shave scalp widely about the wound.
2. Cleanse wound with soap and water and irrigate thoroughly with copious amounts of solution (saline or water).
3. Infiltrate margins of scalp wound with procaine.
4. Remove dirt and excise devitalized portion of scalp.
5. Explore skull for fracture.
6. If no fracture, close wound snugly in one or two layers with interrupted sutures of nonabsorbable material.
7. Give antitetanic serum or tetanus toxoid.

Simple lacerations may be closed in the Emergency Room by a single operator, but it is more satisfactory if the operator has an assistant to compress the margins of the wound to control bleeding.

Where the laceration overlies a fracture, surgical correction should be undertaken only in the Operating Room, for it may be necessary to remove dirt, hair, or débris from the fracture line or to remove bone fragments. One should be prepared to deal with bleeding from the dura and brain.

If the brain is lacerated or foreign bodies are retained within the brain substance, all macerated brain tissue should be removed, the foreign bodies removed if possible, particularly if they are nonmetallic, all bleeding controlled and the dura and scalp closed snugly. Surgical treatment of these wounds requires experience in brain surgery and special equipment (suction, lighting, electrocoagulation, etc.). With the use of chemotherapeutic and antibiotic agents, it is permissible to defer operative closure of wounds for many hours pending improvement in the patient's general condition and analysis of his neurologic status.

Leakage of cerebrospinal fluid from the nose or ear constitutes a special problem. Any cerebrospinal fluid fistula invites the risk of meningitis. Now, with an adequate screen of antibiotic and chemotherapeutic agents, one is justified in waiting 10 to 12 days pending spontaneous closure. If the leak persists longer than this, surgical closure of the fistula should be considered. Some feel that lowering of the spinal fluid pressure to 90 mm. of water by spinal drainage every 12 hours promotes spontaneous closure. Fortunately most fistulas do close spontaneously.

Closed Wounds

One of the most frequent causes of death after head injury is progressive cerebral damage due to anoxia. Many factors contribute to this:

1. The capacity of the contused brain to utilize oxygen is diminished.
2. The cerebral blood flow is reduced, even though blood pressure may be elevated.
3. The oxygen concentration of the blood is diminished as the result of a disturbed respiratory center and obstruction of the respiratory tract (tongue, mucus, pneumonitis).

The treatment in such cases is the maintenance of an adequate airway and the administration of oxygen. Patients frequently improve remarkably after clearing the airway and administering oxygen. The most satisfactory way of giving oxygen is by nasal catheter. Oxygen tents and masks interfere with attempts to keep the airway patent. Constant nursing attention, with a suction apparatus for the removal of mucus, is necessary. This may be supplemented by postural drainage (head down on face). Tracheotomy is indicated in certain cases.

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* A bulletin prepared for The Committee on Trauma of the American College of Surgeons by a Special Committee of The Harvey Cushing Neurosurgical Society: Frank H. Mayfield, M.D., Cincinnati, Chairman; Spencer Braden, M.D., Cleveland; Dean H. Echols, M.D., New Orleans; Cobb Pilcher, M.D.,† Nashville.

† Deceased.

The differential diagnosis between surgical and nonsurgical lesions is of primary importance in the management of acute head injuries and usually depends upon the patient's course. Hence, a carefully taken history, particularly as relates to the onset and duration of unconsciousness, and frequent and repeated neurologic examinations are necessary.

Intracranial clot, such as extradural, subdural or intracerebral hematoma, usually is incompatible with life and requires surgical removal. Most patients with these lesions show progressive stupor, convulsions, focal paralyses and disturbance of the vital signs, such as alteration in pulse, respirations, etc. If the patient has been conscious and then loses consciousness, an expanding intracranial lesion is probably present. The lucid interval may be prolonged (days or weeks) with subdural hematoma. If the patient has remained continuously unconscious from the moment of impact, the coma may be due in part to contusion of the brain and in part to an expanding lesion. In such instances, it may be impossible to make a differential diagnosis clinically, and cranial exploration then is necessary if the patient's condition is growing worse.

The surgical management of these lesions is not within the scope of this paper.

SPECIAL EXAMINATIONS AND TREATMENTS

X-rays. X-rays of the skull rarely influence the course of treatment, yet the procedure of taking films involves considerable manipulation and wastes time, both of which are detrimental to the ill patient. Hence, it is advisable that X-ray examination of the skull be deferred until such time as the patient is coöperative and his condition stabilized. Attention should always be given to the possibility of injury elsewhere, particularly to the cervical spine.

Position of patient. The position of election is with the head elevated, since this reduces venous congestion. The advantages of this position, however, are far outweighed by the disadvantages which might accrue from an obstructed airway, and, if the patient's airway cannot be kept completely open with the head elevated, this position should be changed to one which best promotes an adequate airway.

Shock. Surgical shock (peripheral vascular collapse) is rare in head injuries per se, but, when present, the usual measures (Trendelenburg position, intravenous fluids, mild heat, etc.) should be employed. Shock usually indicates associated injuries and demands primary consideration.

Fluid balance. In an effort to reduce or limit cerebral swelling after head trauma, certain writers have advocated rigid dehydration by withholding fluids, administration of hypertonic solutions intravenously, the use of magnesium sulfate enemas, etc. Rigid dehydration does harm rather than good to an ill patient, since the other vital body functions are interfered with. Fifteen hundred to 2,000 c.c. daily is necessary to keep the patient in fluid balance.

It is necessary in this connection to keep close watch upon the protein metabolism. Coma, stupor and prolonged confusion often result from protein depletion and can be prevented or corrected by the administration of protein hydrolysates, plasma or whole blood. If coma is prolonged, gastric feedings by nasal catheter are indicated, using a high protein diet.

Spinal puncture. Considerable controversy prevails concerning the indications for and the merit of spinal puncture in the diagnosis and treatment of head injuries. Some advocate daily spinal punctures as routine in the treatment of head injuries, but this is not generally accepted. The authors of this bulletin consider the indiscriminate use of spinal punctures dangerous. The following are considered proper indications for spinal puncture.

1. Diagnostic
    a. To determine pressure when intracranial clot is suspected.
    b. To determine the presence and/or degree of bleeding.
2. Therapeutic
    a. To lessen intracranial pressure by withdrawing fluid as a temporary expedient pending measures that provide more lasting control of increased intracranial tension, such as surgical evacuation of clot.
    b. Evacuation of bloody fluid when signs of meningismus appear, usually 4 to 8 days. Evacuation of fluid at this time usually relieves headache and speeds recovery.

Technic: When indicated, a spinal puncture should be done with the patient in the lateral recumbent position, a standard spinal puncture needle being used.

The operator should make the following determinations: color of the fluid, initial pressure, final pressure, and the amount withdrawn.

Jugular compression tests should not be carried out unless one suspects injury to the spinal column. These tests give no information of value with reference to the brain, and the sudden rise in spinal fluid pressure which follows jugular compression may be harmful after head injury.

Spinal puncture should not be attempted if the patient is uncoöperative, since the information obtained is unreliable, and struggling against resistance may be harmful.

Control of restlessness. Patients who are restless and confused constitute a difficult nursing problem, and sedative medication may be necessary. Paraldehyde administered rectally or barbiturates (sodium amytal, sodium luminal) intramuscularly or intravenously are satisfactory. The latter are particularly indicated for the control of convulsions. Morphine and codeine are contraindicated because of depression of respirations, edema of the larynx, and alteration of pupils (diagnostic).

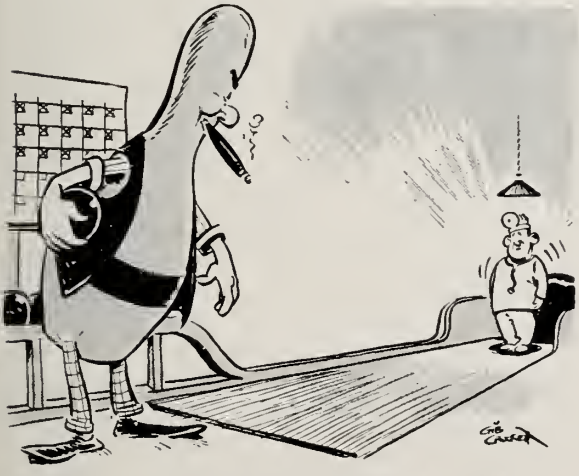
Convalescence. Early ambulation is recommended after head injury. The patient should receive physical therapy in the form of active and passive exercises early and should be gotten out of bed into a chair as soon as he is able and willing to coöperate. Prolonged bedrest is conducive to traumatic neurosis.

Lacerations of the brain, such as are associated with depressed fractures and penetrating wounds, are frequently followed by a convulsive disorder. These patients should be given anticonvulsive medication for a period of several months after injury. The drug of choice is dilantin sodium, $1\frac{1}{2}$ grains 3 times daily.

Many patients complain of residual headache, particularly in the posterior part of the head, and of dizziness. These symptoms generally are classified as post-traumatic neuroses. Recent observations indicate that they may result from trauma to the cervical roots and at times are relieved by cervical traction.

NINTH ANNUAL DINNER OF MEDICAL BOWLERS

The D. C. Medical Duckpin League concluded its 1949–50 season by holding its ninth annual dinner at the Brook Farm Tea House in Chevy Chase, April 20. Dr. John F. Finnegan, Vice President of the League, presided at the dinner in the absence of Dr. William R. Perkins, President. "Bo" Rowland, well known coach of the George Washington University football team, was the *pièce de résistance* of the entertainment. Theodore Wiprud, Secretary of the District Medical Society, awarded the prizes.



District of Columbia Medical Duckpin League
Ninth Annual Dinner

Outstanding performances of the League were Dr. Israel Kessler's 424 set and Dr. J. Phelps Hand's sets of 404 and 403.

The Mt. Alto team kept its first place in the League for the third consecutive year. The scores for the first five places read as follows:

		Won	Lost
First Place	Mt. Alto	50	28
Second Place	Garfield No. 2	47	31
Third Place	Sibley No. 1	46	32
Fourth Place	Good Hopers	45	33
Fifth Place	Prince Georges	43	35

Members of the five winning teams were as follows:

Mt. Alto: Dr. Alfred Dibbs, *Captain;* Drs. Louis H. Shuman and Ambrose H. Cook, and Messrs. Kenneth Clark and Paul Duffy.

Garfield No. 2: Dr. Frank S. Bacon, *Captain;* Drs. George A. Resta, Israel Kessler, John W. Nesbitt, Thomas J. Pekin and John P. D'Angelo.

Sibley No. 1: Dr. John F. Finnegan, *Captain;* Drs. Richard J. McNulty, Joseph F. Belair, Francis X. Richardson and George J. Ellis, and Mr. Theodore E. Gero.

Good Hopers: Dr. Alfred Wilson, *Captain;* Drs. Howard E. Newman, Warren B. Burch, Victor V. Skinner and Ernest E. Cornelsen, and Mr. Joseph R. Harrison.

Prince Georges: Dr. Charles Hageage, *Captain;* Drs. George J. Hageage, John H. Holt, William Brainin and Leonard S. Berman, and Mr. Kendall Twigg.

The following individuals were awarded prizes for high scores:

High League Average

First	Mr. Frank Baiers	114–29
Second	Mr. Duffy	114–21
Third	Dr. Kessler	113–17
Fourth	Dr. Millard F. Ottman	109–23

High Individual Set

First	Dr. J. Phelps Hand	404
Second	Dr. George J. Hageage	380
Third	Dr. Resta	379

High Individual Game

First	Dr. Roy G. Klepser	166
Second	Dr. George H. McLain	151
Third	Dr. John W. Price	150

High Strikes

First	Dr. Blaine H. Eig	43
Second	Mr. Twigg	41
Third	Dr. Bernard A. Fitzgerald	35

High Spares

First	Dr. Charles Hageage	169
Second	Dr. Willis B. Morse	148
Third	Dr. Richardson	137

High Average—Each Team

Mt. Alto	Mr. Duffy	114
Garfield No. 2	Dr. Kessler	113
Sibley No. 1	Dr. Richardson	108
Good Hopers	Dr. Wilson	103
Prince Georges	Mr. Twigg	109
George Washington	Mr. Baiers	114
Doctors	Dr. Leland S. Madden	102–55
Providence No. 2	Dr. George L. Ball	107
Garfield No. 1	Dr. William G. Cushard	103
Suburbanites	Dr. Ottman	109
Sibley No. 2	Dr. Hand	108
Columbia	Dr. Howard A. Donald	101
Georgetown	Dr. Klepser	105
Providence No. 1	Dr. Ross M. Lehman	103

Any physician who wishes to compete regularly beginning with the fall season should get in touch with the President of the League, Dr. Perkins, or Dr. Ottman. The League has been in existence 12 years.

SURVEY OF PHYSICIANS' INCOMES

The Bureau of Medical Economic Research of the American Medical Association and the Office of Business Economics of the U. S. Department of Commerce are jointly conducting a survey of physicians' incomes.

The Bureau was authorized by the AMA Board of Trustees to coöperate in this survey, which the Department of Commerce had planned to conduct alone. It will be the first full-scale survey by the Department of physicians' incomes since 1941.

An analysis of the results will be published by the Department of Commerce next fall in its monthly publication, *Survey of Current Business.* Its August 1949 and January 1950 issues had published similar analyses of surveys of incomes of dentists and lawyers, respectively, made jointly with the American Dental Association and the American Bar Association.

There is evidence that the national averages in some surveys have been too high because physicians who do not have bookkeepers to fill out questionnaires do not reply in sufficient numbers. Accordingly, the Bureau emphasizes the importance of all doctors, especially those with a relatively small practice, filling out the questionnaires.

Accurate postwar data on physicians' incomes are badly needed in order to develop better estimates of how much the American people pay to physicians.

Every physician can be assured that the survey has no relation whatever to the operations of the U. S. Bureau of Internal Revenue. There is no way by which the Department of Commerce could have obtained the needed information from the Bureau of Internal Revenue, hence the questionnaire survey.

There will be two questionnaire forms. The Bureau of Medical Economic Research helped to design these. A short form will request income data for 1949 only. A long-form questionnaire will cover the years 1945 through 1949. All are to be returned unsigned in franked envelopes.

The punch card files of the Bureau of Medical Economic Research contain the names of about 200,000 physicians. The survey will cover 125,000 of these, or 62½ per cent of the total. Selection will be by a formula which eliminates any partiality.

(*Continued on page 354*)

Our Living Past Presidents

HARRY HYLAND KERR. M.D.C.M., F.A.C.S., President, 1929

Dr. Harry Hyland Kerr, distinguished son of a pioneer Irish surgeon, Dr. James Kerr, and Laurie Bell Kerr, was born in Winnipeg, Canada, April 30, 1881. His father, who had done frontier-day surgery in Winnipeg and founded the University of Manitoba School of Medicine, brought him to Washington at the age of eight. Here he attended Central High School and Columbian University. During his boyhood days in Washington he displayed an artistic ability which has recently developed into a gratifying hobby for him. He has produced many water colors of Nantucket, some of which were exhibited in the Doctors' Art Exhibit sponsored by the District Medical Society a year ago.

Influenced by his father's friendship with Sir William Osler, he studied medicine at McGill University and graduated in 1904 with the degree of M.D.C.M. Following graduation he served as interne in the Montreal General Hospital; later he studied on the Continent and in England for a year. During his internship he began to acquire interest in new fields and was probably one of the first to form a ski club on this continent. Returning to Washington he became associated with his father in the practice of surgery. During his student days he recalls being called to help his father operate in the Warrenton, Virginia jail on a prisoner who had multiple gunshot wounds of the abdomen. With crude facilities and a kerosene student lamp, held by Dick Wallach, the laparotomy proceeded. The surgeon and his student son were draped in wet bichloride towels and an admiring dark-skinned audience peered through the windows and generally got in the way in the room. Several perforations of the intestines and a laceration of the liver were found. Postoperative care was given by the son, who lived in the jail with the patient for about a week. The patient developed delirium tremens but recovered.

Upon entering practice Dr. Kerr rapidly began to show a progressive attitude and scored many "firsts" in various types of surgery in Washington. Working on dogs with Dr. Edward Mason Parker in the basement of what is now the Library of the Surgeon General, he worked out the basic principles of aseptic intestinal anastomosis according to the "basting stitch technic." This useful procedure, the "Parker-Kerr basting stitch," embodies the basic principles of all modern instruments devised for intestinal anastomosis. After publication in the Johns Hopkins Hospital *Medical Bulletin* of May 1908 under the title "Intestinal Anastomosis without Open Incision by Means of Basting Stitches," it was used in humans with the saving of many lives. To this day the method is useful in patients not prepared by antibiotics for intestinal resection.

Following trips to New York City to watch Dr. Willy Meyer operate, Dr. Kerr performed the first open thoracotomy under intratracheal anesthesia in Washington at Freedmen's Hospital in May 1907. The chest was widely opened; the collapse and expansion of the lung under varying pressures, the heart beat, and empyema cavity were all observed and recorded. The patient made an uneventful convalescence. Later a bullet was removed from the lung of another patient under intratracheal anesthesia. A description of the former case was published under the title, "Thoracotomy under Intratracheal Insufflation" in the *Virginia Medical Monthly* for July 12, 1912. With the founding of the American College of Surgeons in 1913, he became a Fellow in 1914.

With the outbreak of World War I, Dr. Kerr became a First Lieutenant in the Army; after serving briefly in the Surgeon General's Office he went to France with the A. E. F. There he distinguished himself in the new field of neurological surgery while working as consultant in neurosurgery under Colonel Harvey Cushing for the A. E. F. With a rich war experience he returned to the District of Columbia to become Washington's first neurological surgeon; here he had the opportunity of making follow-up studies on many of the neurological cripples of World War I. Many of the patients with paralysis of the bladder following a gunshot wound of the spinal cord continued under Dr. Kerr's care for many years, one as long as 28 years.

With his great versatility and keen knowledge of anatomy it was natural for a man of his abilities to assume a position of national and local leadership in surgery. He taught at George Washington University for 25 years and was Professor of Neurosurgery for many years. He is a member of the Board of Governors of the American College of Surgeons, one of the founders of the American Board of Surgery, Past President of the Society of Neurological Surgeons, Past President of the Southern Surgical Society, and retains membership in many national and local organizations. He was elected a member of Sigma Xi, honorary society of the George Washington University Medical School, in 1938. He was Chief Surgeon at Garfield Memorial Hospital for a great many years.

His interest in cancer has been steadily increasing since 1923, at which time he took the lead in establishing a committee for the study and control of cancer. Since then he has been able to stimulate the interest of others in cancer, and at the present time is President of the District of Columbia Division of the American Cancer Society. Paralleling this activity he was instrumental in establishing the Warwick Memorial Clinic with bequest funds of the late Randolph T. Warwick. This Clinic, the first in Washington to be devoted entirely to cancer, did not begin to actually care for cancer patients until 1932; more recently it has affiliated with George Washington University Hospital and cares now for approximately 600 patients per month.

As a memorial to his great friend Dr. Francis Hagner, he helped establish the Hagner Memorial Library in Garfield Hospital.

By a curious coincidence Dr. Kerr met Dorothy Beatrice Glass in Washington after entering practice here, although she too was born in Winnipeg, Canada. They were married, January 1, 1910, and have one son, Peter Kerr, who is now teaching art in New York City. Mrs. Kerr's rare personality and ability have been instrumental in converting the old barn at the site of Pierce's Mill into one of the most charming homes in the city.

(*Continued on page 354*)

PROCEEDINGS OF THE ANNUAL BUSINESS MEETING

Dr. Walter Freeman, President of the Medical Society of the District of Columbia, presided at the 1950 Annual Business Meeting and election of officers, which was held on May 3. In advance of the meeting, copies of "Reports of Officers, the Executive Board and the Board of Censors for 1949–1950" had been mailed to the entire membership. These reports were accepted by the Society without reading. The Supplementary Report of the Executive Board was presented by the Chairman, Dr. William Earl Clark, and accepted by the Society.

The Annual Meeting marked the first joint session of the Society and the Bar Association of the District of Columbia. John L. Laskey, President of the Bar Association, announced that as a result of a meeting with Chief Judge Bolitha J. Laws of the District Court and United States Attorney George Morris Fay, the two organizations would be asked to select a panel of 12 psychiatrists to help the courts in the prosecution of sex violators under the Miller Act.

The principal speaker of the evening was Dr. Leonard M. Elstad, President of Gallaudet College, Washington. His description of the work at the College, the only college for the deaf in the United States, was instructive as well as entertaining. Following his speech, Dr. Clark presented Dr. Freeman with an inscribed gavel as a memento of his year of service in the highest office of the Society.

A social hour in the Society's library followed the program.

Annual Report of the Chairman of the Executive Board

"I am sure you will agree with me that ours is a vigorous, forward-looking organization; that it is also a dynamic force in the community. With your continued support and interest it will gain in strength and effectiveness." It was with this note of optimism that the Chairman presented his report. He added a word of warning, however: "There seems little doubt that troublous times are ahead for the medical profession as well as for every other group in this country. Those who are guiding the destinies of this organization are, therefore, burdened with heavy responsibilites. They need your sympathetic understanding and loyalty. I am confident they can count on each one of you."

The Chairman reviewed, by months, the principal activities of the Board during the period from May 1949, following the last Annual Business Meeting, through March 1950. One new amendment to the Society's Constitution and By-laws, Amendment XX, relating to membership dues, had been prepared by the Board and accepted by the Society. He presented to the Society for permanent membership 103 Active and 35 Associate members who had served a probationary period of at least one year.

The Chairman reported with regret the deaths of 19 members during the past year. They were: Drs. Seneca B. Bain, James H. M. Barber, Joseph J. Bateman, John H. Bullock, A. Barklie Coulter, Philip A. Degnan, Samuel H. Greene, Jr., Mary Holmes, S. Wren Howard, Simon R. Karpeles, William B. Mason, William Gerry Morgan, Henry G. Plaster, Harold R. Reed, Sterling Ruffin, Ernest Sappington, Henry Richard Schreiber, Gustave H. Schulze, Jr., and William C. Woodward.

Report of the Secretary

In an attempt to add more interest to his annual report, the Secretary decided to shift the emphasis from the personal to the broader aspect of the matters with which he was dealing. Accordingly, he divided the report into three parts, (1) State of the Society, (2) Activities of the Society, and (3) Activities of the Secretary.

STATE OF THE SOCIETY

The Secretary reported a steady increase in growth of membership, as attested by the following comparative figures for May 1 of 1940, 1945, and 1950:

	1940	1945	1950
Active	839	931	1,318
Life	59	70	79
Associate	190	214	315
Honorary	7	9	16
Affiliate	—	—	8
Resident-Intern	—	—	3
Totals	1,095	1,224	1,739

The membership luncheons, inaugurated early in February for the purpose of acquainting new members with activities of the Society, had proven very successful and were continued through the middle of April, on successive Tuesday noons.

Attention was drawn to the $25,000 bond issue available to members of the Society in amounts of $50 or multiples thereof up to $5,000. The bonds will mature in 10 years and draw 3 per cent interest, payable annually. Funds derived from this source will be used for the purchase of the property at 1720 M Street, N.W., adjacent to the Society's office building.

ACTIVITIES OF THE SOCIETY

The Secretary reported fair attendance for the scientific programs throughout the year. He touched upon the great number of medical meetings in Washington and the need for concentrating the scientific activities of the community in the parent organization.

The Society's ANNUAL LECTURE SERIES was presented during April. The subject this year was "Emotional Factors in Illness."

He described the 20th ANNUAL SCIENTIFIC ASSEMBLY as the most successful to date not only from the standpoint of attendance but as to quality of the program and exhibits. The total registration for the ASSEMBLY was 2,938 physicians and guests.

The Secretary described the Society's journal, the MEDICAL ANNALS OF THE DISTRICT OF COLUMBIA, as an essential contribution to the scientific program. The Editorial Board, headed by Dr. Wallace M. Yater, is cognizant of the amount of scientific material now available in the Nation's Capital, one of the great medical centers of the country, and the publication reflects the excellence of this material.

As Managing Editor of the ANNALS, the Secretary writes a column, contributes articles, and supervises the business affairs of the publication. All details of the publication are handled by Miss A. Louise Eckburg, Assistant Editor, who also writes the news and personals and contributes other material.

The growth of MEDICAL SERVICE OF THE DISTRICT OF COLUMBIA was described as phenomenal. At the close of December 1949, 193,446 persons were entitled to benefits under the plan; a total of 1,285 physicians were participating.

Foreseeing the need for an adequate emergency medical service in the District of Columbia in the event of wartime disaster, the Executive Board urged District officials to begin preparations for civil defense, but they hesitated to act until steps were taken on a national level. The Board therefore established its own Committee on Emergency Medical Service.

The District Commissioners called a meeting of citizens and organizations interested in civil defense on March 3. Representing the Society at this meeting were Dr. A. Clagett Gray, Chairman of the Committee on Emergency Medical Service, Dr. William D. Claudy, Chairman of the Subcomittee on Preliminary Estimates, and the Secretary. On March 24 at a meeting of the medical group under the acting chairmanship of Dr. Gray, Dr. Claudy was chosen chairman of what will be known as the Medical Committee of the Temporary Committee for Civil Defense.

In the Secretary's opinion, no project of the Society has won wider public approval than MEDICAL BUREAU. In 1949 it handled more calls than in any previous year. A total of 131,000 messages were taken for physicians, an increase of 21 per cent over 1948, and more than 4,000 emergency requests for physicians were completed. More than 12,000 telephone calls for names of physicians (not emergencies) were handled. In response to each call the names of three physicians were given.

On March 1, 1950, there were 681 subscribers to MEDICAL BUREAU, of which 375 were for Alternate Listing Service and 306 to Telephone Secretarial Service. This represented a total increase of 60 subscribers over March 1, 1949.

The Speakers Bureau provided a number of speakers for lay groups during the past year. There are still too few physicians adequately prepared to speak on compulsory health insurance. This situation was being remedied by two orientation sessions scheduled during the current public speaking course.

The Secretary called attention to a few special benefits available to Society members: the group malpractice insurance policy with the U. S. Fidelity and Guaranty Company, participation in Group Hospitalization benefits, a group health and accident insurance policy available through the Werber Insurance Agency, and special parking privilege cards obtainable at the Society's Executive Offices.

ACTIVITIES OF THE SECRETARY

The Secretary participated in all of the activities mentioned in the report and many other community activities of a medical nature. He was in charge of the office staff and administered the business affairs of the Society. He continued as a member of the Commissioners' Traffic Advisory Board, the Health Section of the United Community Services, the Interprofessional Conference of the District of Columbia, the Public Health Committee of the Washington Board of Trade, the National Press Club, and the Rotary Club.

He fulfilled a number of speaking engagements during the past year. In June 1949 he was moderator of a panel discussion on handling emergency calls at the Fifth National Conference of County Medical Society Officers in Atlantic City, N. J. On September 15 he addressed both the Florence (South Carolina) Kiwanis Club and the Pee Dee Medical Association. As in the past he addressed the senior students of Howard University School of Medicine on "The Business Aspects of Medical Practice." He participated in a national broadcast over NBC sponsored by the AMA's Bureau of Health Education.

Following the departure of Mr. J. Richard Connelly, Assistant Secretary of the Society, last August to become Executive Director of the American Diabetes Association, the Secretary took over many of his duties. Mr. Lawrence A. Zupan was employed as successor to Mr. Connelly late in August and has demonstrated his reliability and genuine interest in the Society.

The Secretary expressed his appreciation to the office staff and to the employees of MEDICAL BUREAU for efficient and faithful service. He made particular mention of the friendly coöperation extended him by officers of the Society and of the uniform thoughtfulness and consideration shown him by the membership.

ELECTION OF OFFICERS

The slate of officers presented by the Nominating Committee at the business meeting of the Society, March 1, was elected without opposition. The new officers are:

President-elect: Frank D. Costenbader
First Vice President: J. Bay Jacobs
Second Vice President: Helen Gladys Kain
Member of Executive Board: Walter Freeman
Member of Board of Censors: J. Ross Veal
Delegate to American Medical Association: Herbert P. Ramsey
Alternate Delegate to AMA: Victor R. Alfaro

Dr. William M. Ballinger will assume the office of President of the Society, July 1. Dr. Costenbader will take office on July 1, 1951. With the exception of the delegates to the AMA all officers of the Society begin their duties on July 1. Dr. Freeman will serve for four years on the Executive Board and Dr. Veal three years on the Board of Censors. Dr. Ramsey and Dr. Alfaro are elected for two years, beginning January 1, 1951. In addition Dr. Alfaro will complete the unexpired term of Dr. Hussey, Alternate Delegate who became Delegate on January 1, 1950.

REPORT OF THE BOARD OF CENSORS

The Chairman reported that membership in the Society reached a new high on May 1, 1950, with a total of 1,739 members, compared to 1,658 on May 1, 1949. There has been a steady decrease in the number of new members recommended to the Executive Board for election: 176 in 1947–48, 166 in 1948–49, and 136 for 1949–50, which indicates a stabilization of the membership. The Chairman stated that the new applicants are generally exceptionally well trained and a decided asset to the community.

Two physicians were recommended by the Board for Honorary membership: Dr. Richard L. Meiling, Director of Medical Services, Office of Secretary of Defense, and Dr. Luis Francisco Thomen, Ambassador of the Dominican Republic.

The Membership Luncheons, which replaced the Orientation Lectures, received much favorable comment and it is proposed to continue them, if funds are available, until all members have participated.

SUPPLEMENTARY REPORT OF THE EXECUTIVE BOARD

Some of the matters dealt with in this report have already been mentioned in the Annual Report of the Chairman of the Executive Board mailed to you previous to this meeting. They are enlarged upon here because it seemed desirable to your Board that members be given more detailed information than was possible in a condensed report. In addition, there are items which could not be included in the Chairman's Report for the reason that it is prepared several weeks in advance of the April meeting of the Executive Board.

Honorary Membership for Drs. Richard L. Meiling and Luis Francisco Thomen: The professional accomplishments of Drs. Meiling and Thomen were presented in considerable detail at the March 1, 1950 business meeting of the Society when they were proposed for Honorary membership. There is no need to repeat these here except to state that Dr. Meiling is at present Director of Medical Services, Office of Secretary of Defense, and Dr. Thomen is Ambassador from the Dominican Republic. Both are distinguished physicians who, in the opinion of your Board, and the Board of Censors, merit recognition by the Society.

Your Board recommends their election to Honorary membership at this meeting.

Approval of Group Health Association, Inc.: Those of you who read the Annual Report of the Chairman of the Executive Board will recall that among the actions of the Board in March, 1950 was the following:

> "Endorsed the action of the Committee on Medical Care approving Group Health Association, Inc. The Committee found that GHA conformed to the 20 principles adopted by the AMA's House of Delegates as a criterion for approval of lay-sponsored voluntary health plans."

The principles referred to were originally adopted by the House at its June, 1949 meeting and were modified slightly at the Interim Session in Washington in December.

Of special interest to our members is the fact that among the group which conferred with officials of the AMA in regard to AMA recognition of lay-sponsored voluntary health plans was the Executive Director of Group Health Association, Inc., Mr. Melvin L. Dollar. Quite naturally, GHA was the first lay-sponsored voluntary plan in the country, so far as your Board is aware, to apply to its state medical society for approval.

The Committee on Medical Care, to whom this matter was referred, made a careful investigation to ascertain if GHA conformed to the principles laid down by the AMA. It requested GHA to submit numerous documents, including their by-laws, financial statement, promotional literature and other data with its application. The Committee also interviewed Dr. Henry H. Lichtenberg, Medical Director, Mr. Ira M. Williams, Treasurer of GHA, and Mr. Dollar. Members of the GHA medical staff were interviewed individually by Committee members. In other words, the Committee's action was not a gesture but predicated on a sincere effort to get at the facts.

Both the Committee on Medical Care and the Executive Board are satisfied that GHA meets AMA requirements.

Invitation to the American Medical Association to Hold Its 1952 Interim Session in Washington: As many of our members know, the 1949 Interim Session of the AMA, held in Washington last December, was the most successful midyear meeting to date. Attendance was the largest since the Sessions were inaugurated, and the program and exhibits were of such high quality as to win the enthusiastic praise of physicians in attendance.

Reliable reports have it that AMA officials would welcome an invitation to return to Washington in 1952. Your Board, therefore, has extended an invitation which it hopes will be accepted.

Progress Report on Medical Service of the District of Columbia: Members of the Society who are also Participating Physicians in MEDICAL SERVICE OF THE DISTRICT OF COLUMBIA, the Society's surgical-obstetrical prepayment plan, and who were present at the SERVICE's Annual Meeting on April 28, were given a rather detailed report which might be described as favorable but challenging.

Your Board has watched the development of MEDICAL SERVICE with great interest. It believes that the success of the SERVICE depends more upon the active support of Participating Physicians than many members of the Society realize. Therefore, it has urged the dissemination of more information among members about the SERVICE and what its success means to the people of this community and to the medical profession. The announcement that the SERVICE had acquired its own Manager, Mr. George B. McGovern of the staff of Group Hospitalization, Inc., was welcome news to your Board. As he is to devote himself exclusively to the SERVICE, a closer relationship and a better understanding between physicians and the SERVICE should result.

With respect to the growth in the number of subscribers to MEDICAL SERVICE, it has been all that could be asked for. The plan began operation April 1, 1948 and on March 31, 1950 there were 210,000 persons enrolled, 72,000 of whom had been acquired since April 1, 1949. Incidentally, MEDICAL SERVICE enjoys the distinction of ranking third among the 67 Blue Shield plans in the country in percentage of population enrolled.

Among the highlights of the generally favorable report were the following:

> On February 1, 1950, 1,273 doctors (compared to 1,080 on February 4, 1949) were participating in the plan. Included in the total of 1,273 physicians were 173 Coöperating Physicians, 137 in Maryland and Virginia and 36 in the District of Columbia.
>
> Since the SERVICE began operation, 52,186 claims have been processed and $1,780,842.00 has been paid to Participating and Coöperating Physicians.
>
> In October, 1949 MEDICAL SERVICE was granted the AMA's Seal of Acceptance by its Council on Medical Service.

Not all of the report was favorable. That would be expecting too much in a project as ambitious and far-reaching as this one. While every effort was made in advance to insure the actuarial soundness of the SERVICE, many factors come into play in this community which do not exist elsewhere. Your Board does not want to bore you with the details in regard to them but to point out their importance.

While those responsible for the development of the plan endeavored to allow for these differences in appraising experiences elsewhere, they were not wholly successful. It should be pointed out that this situation is not unusual; in fact, it parallels the experiences of most Blue Shield plans.

Experience in the past year has shown that the income of MEDICAL SERVICE was not sufficient to discharge its obligations and to accumulate a reserve. Steps short of altering the financial set-up of the SERVICE were taken some months ago. Underwriting controls were strengthened and the administrative machinery tightened. These have, to date, not produced the desired results. It now appears that it may be wise to take further steps to insure the financial stability of the plan.

As was made clear at the Annual Meeting, there is no reason for concern. It is merely a matter of doing what is necessary, which leads to the observation that no perfect plan has been devised. They all have defects which must be corrected as promptly as conditions permit. Any suggestions from the membership should be communicated to the Board of Trustees of the SERVICE.

It should be mentioned that the officers of the SERVICE are a sincere and hard-working group exuding confidence in the future of MEDICAL SERVICE, a feeling which your Board shares.

Bond Issue for the Purchase of 1720 M Street, N. W.: Sale of the $25,000 bond issue authorized by the Society on November 9, 1949 is now under way. As has been announced on a number of occasions, these bonds will mature in ten years and bear interest at the rate of 3 per cent, payable annually. They are so-called bearer bonds and are nontransferable and nonnegotiable, and may be purchased by Society members only in denominations of $50.00 and multiples thereof. Bonds will be dated June 1, 1950 and will bear interest as of that date.

It should be unnecessary to state that the funds derived from this bond issue will be used for the purchase of the property at 1720 M Street, N.W. Details of this transaction have been reported to you so many times that repetition is unnecessary. The point your Board wishes to make in this report is that although the response to circularizing Society members a week or so ago was satisfactory, ten physicians having purchased $4,400 in bonds, the bulk of the bonds remains to be sold.

Your Board urges members to purchase these bonds, not as a demonstration of loyalty but as a sound investment. There would not be much difficulty in selling bonds to a few well-off members; however, the Board prefers the sale of bonds in small amounts to many purchasers. The limit for any one purchaser is $5,000.

Medical Committee for Civil Defense of the District of Columbia: There is no point in making a detailed report here in regard to the present status of the medical aspects of the civil defense program in the District of Columbia. The Secretary, in his report, has enlarged upon the situation, relating in some detail the progress which has been made.

CALENDAR OF MEETINGS

April 17	Public Speaking Course
April 18	Joint meeting of Women's Medical Society and Women's Bar Association
April 20	Washington Psychiatric Society
April 21	Board of Censors
April 22	Washington School of Psychiatry
April 24	Executive Board
	Public Speaking Course
	Annual Lecture Series
April 25	Committee on Public Health Exhibit, Annual Scientific Assembly
	Section on General Practice
	Medical Officers' Reserve Units
April 26	Scientific Meeting of Society
	Committee on Arrangements, A.S.A.
April 28	Classification Committee
	Medical Service of D. C.
May 1	Public Speaking Course
	Annual Lecture Series
May 2	Section on Pathology and Laboratory Medicine
	Registered X-ray Technicians of D. C.
May 3	Annual Business Meeting of Society
May 4	Woman's Auxiliary
	Health Section, United Community Services
	Executive Committee, Gallinger Municipal Hospital
May 5	Committee on Cancer Control
May 8	Public Speaking Course
	Annual Lecture Series
May 9	College of American Pathologists et al
	Medical Officers' Reserve Units
	District Dental Society
May 10	Scientific Meeting of Society
	Woman's Auxiliary
	College of American Pathologists et al
	American Medical Technologists
May 11	Washington Heart Association
May 12	Committee on Social Affairs, A.S.A.
	Steering Committee, Temporary Committee on Civil Defense
May 13	Washington School of Psychiatry
	Washington Psychoanalytic Society
May 15	Committee on Television, Radio and Motion Pictures, A.S.A.
	Public Speaking Course
	Washington Heart Association

At the present time the medical phase is receiving the close attention of the Society's Committee on Emergency Medical Service, of which Dr. A. Clagett Gray is Chairman, as well as the Medical Committee for Civil Defense which was created at the request of the District Commissioners. Dr. William D. Claudy is Chairman of this Committee.*

There is still much confusion in Government circles in regard to civil defense plans. Funds are also lacking to carry out recommendations of the various groups interested in the field. Somehow this chaotic situation must be resolved. And let us hope there will not be too much delay.

21st Annual Scientific Assembly: Plans for the forthcoming ANNUAL SCIENTIFIC ASSEMBLY are already far advanced. The ASSEMBLY is scheduled to be held at the Hotel Statler, October 2, 3 and 4. Dr. Karl C. Corley, Chairman of the Committee on Arrangements, has announced that there will be several new features and improvements in the physical aspects of the meeting. Members of the Society might well look forward to the ASSEMBLY, which has become one of the outstanding state medical meetings in this country.

Conclusion: Members may be interested in some of the activities which will be carried on by your officers and the staff at the Society's Executive Offices during the summer.

In the first place, the committee structure will soon be revised in an effort to avoid duplication, thereby contributing to the efficiency of our organization. This will require considerable time and thought.

Then, too, there is the change in administration on July 1. At that time new officers, boards and committees take over. It will be necessary to familiarize all of them with their duties and responsibilities. When this has been accomplished the objectives for the coming year will have to be decided upon. By fall, the new administration should be prepared to function smoothly.

Most of the work in connection with the ASSEMBLY is done during the summer months. In-

(*Continued on page 354*)

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* Dr. Claudy's report on "Medical Service and Civil Defense," submitted to the District Medical Society's Committee on Emergency Medical Service of the Washington Metropolitan Area, appeared in the May, 1950 issue of the MEDICAL ANNALS, page 273.

News and Personals

Plans are taking shape for the **first conjoint meeting of the District of Columbia, Maryland, Virginia and West Virginia Sections of the Southeastern Surgical Congress,** July 13–15, inclusive, at the Greenbriar Hotel, West Virginia's beautiful and spacious resort. The Honorable Rush D. Holt, member of the West Virginia House of Delegates and a former U. S. Senator, has been selected to present the principal banquet address. His subject will be "The Fable of the Free Lunch."

Several physicians from the District of Columbia will appear on the program, which is planned to appeal to the general practitioner. Drs. Aubrey O. Hampton and Herbert H. Schoenfeld will speak on "Diagnosis and Treatment of Hemorrhage of the Upper Gastrointestinal Tract." Dr. Hampton will discuss the diagnosis from the X-ray standpoint and Dr. Schoenfeld will describe the treatment. Dr. Donald Stubbs will present a paper on "The Management of Pain."

This meeting is a sectional one and all physicians are invited to attend. Dr. Harry Lee Claud is Chairman of the District of Columbia Committee. Doctors should make room reservations directly with the Greenbriar Hotel, White Sulphur Springs, West Virginia, and indicate that they are planning to attend this meeting.

The Middle-Eastern Region of the College of American Pathologists, in joint meeting with the Baltimore Pathological Society, the Washington Society of Pathologists, and the Section on Pathology and Laboratory Medicine of the Medical Society of the District of Columbia, concluded a most successful two-day meeting, May 10, in the District Medical Society's building. There was a total registration of 235 pathologists.

Dr. Walter Freeman, President of the District Medical Society, greeted the assembled guests at the opening session, May 9. Several other members of the Society appeared on the program. Dr. E. Clarence Rice led the general discussion on "The Lipoid Storage Diseases" and Drs. Kenneth L. McCoy and John E. Cassidy gave two of the case presentations which followed. Dr. Theodore O. Winship, of Garfield Memorial Hospital, and Dr. O. Benwood Hunter, Jr. and Dr. James E. Ash, of Doctors Hospital, took part in a Symposium on Carcinoma in Situ of the Cervix, May 10. Other speakers in the Symposium were Dr. Edwin D. Murphy, of the National Cancer Institute; Dr. Hugh Grady, of the Armed Forces Institute of Pathology; and Dr. Richard W. TeLinde, Professor of Gynecology, Johns Hopkins University School of Medicine, Baltimore.

The Honorable Paul Cunningham, Congressman from Iowa, addressed the dinner meeting at the Mayflower Hotel, the evening of May 9. His subject was "Socialized Medicine and the Constitution of the United States."

The afternoon of May 10 was devoted to a tour of the Armed Forces Institute of Pathology.

The meeting closed with an address by Dr. Andrew C. Ivy, Vice President in Charge of the Chicago Professional Colleges, University of Illinois. The program was held in the Medical Society's building and members of the District Medical Society were invited to atend. The subject of his address was "The Differential Therapeutic Diagnosis of Jaundice."

In charge of arrangements for the meeting was Dr. Oscar B. Hunter, Sr. assisted by Dr. Ash, Captain William M. Silliphant, MC, USN, and Brig. General Raymond O. Dart, MC, USA. Dr. Roger M. Choisser served on the Middle-Eastern Regional Committee. Drs. Tomas Cajigas, Eugene R. Whitmore and Lester Neuman comprised the Hotel and Banquet Committee. On the Program Committee from Washington were Dr. H. H. Leffler, Chairman, Drs. Rice, Winship, Harold L. Stewart, Hans Smetana, Maurice A. Selinger, Colonel V. H. Cornell, MC, USA, and Commander W. W. Ayers, MC, USN. Dr. Hunter, Jr. was Chairman of the Transportation Committee.

At the meeting of the **Executive Board of the Medical Society of the District of Columbia,** April 24, it was voted to lend whatever assistance necessary to the Brookings Institution in its study of the availability of medical service in the United States.

The Board voted to extend an invitation to the American Medical Association to hold its 1952 Interim Session in Washington, D. C.

At its meeting, March 27, the Secretary read a letter from the Medico-Chirurgical Society expressing approval of a joint committee, proposed by the District Medical Society, to consider community health projects in which both groups have a logical interest. The Medico-Chirurgical Society had appointed as their representatives, Drs. W. Montague Cobb, Ulysses L. Houston and Edward C. Mazique. The Executive Board had previously appointed a special committee to confer with representatives of the Medico-Chirurgical Society and the same members were designated the representatives of the District Society on the permanent committee. They are Drs. Walter Freeman, Herbert P. Ramsey and Raymond T. Holden.

Mr. Frank R. Jelleff had been nominated by the Chairman of the Board to succeed himself as the appointee of the Society to the Board of Trustees of Group Hospitalization, Inc. This action was confirmed by the Board.

The Board endorsed the action of the Committee on Medical Care in approving Group Health Association as a lay-sponsored medical care plan. As a result of its investigation, the Committee found Group Health adhering to the principles adopted for such groups by the House of Delegates of the AMA.

Drs. A. Clagett Gray and William D. Claudy were designated the Society's representatives on the Medical Committee of the Temporary Committee for Civil Defense.

In response to a request from Dr. Hugh J. Davis, Chairman of the Committee to Review the Child Health Study in the District of Columbia, the following members whose names he submitted were approved by the Board for inclusion on his committee: Drs. C. K. Fraser, Daniel L. Seckinger, Robert H. Barter, Lewis K. Sweet and Ashby W. Smith.

At the request of Mr. Willard C. Smith, Administrator of Hospital Service Agency, it was voted to reduce the number of representatives of the Medical Society in the Corporate Membership of HSA from 28 to 21 so as to permit representation of medical groups in the counties adjacent to the District of Columbia.

Dr. Lloyd L. Lewis, Chairman of the Committee on Cancer Control, was appointed chairman of the medical group for the recent Cancer Drive.

It was voted to appoint a special committee of three, consisting of the President and two members of the Board, to act in an advisory capacity to the Woman's Auxiliary.

Medical Service of the District of Columbia held its annual meeting and election of trustees, April 28, in the Medical Society's building. In his annual report, Dr. Frank D. Costenbader, President of the SERVICE, announced the appointment of George B. McGovern, formerly Office Manager of Group Hospitalization, Inc., as Manager of the SERVICE. Mr. McGovern has been associated with GHI, which administers MEDICAL SERVICE, for seven years and has become familiar with all phases of its operation.

Nominated by participating physicians of MEDICAL SERVICE and elected to serve on the Board of Trustees for three years were Drs. Arch L. Riddick, Donald Stubbs and William P. Herbst. For Dr. Herbst, this was a reëlection.

Reëlected to serve on the Board of Trustees for one year were Dr. G. Halsey Hunt, nominated by the Public Health Service; P. M. Talbott, named by the Washington Board of Trade; and Bruce Baird, proposed by the District Commissioners. Dr. Daniel L. Seckinger, Health Officer, who represents the District Health Department, was also reëlected to serve for one year.

Members of the Board who continue in office are Dr. Don Johnson, Dr. Maurice A. Selinger, Dr. Charles Stanley White, and Theodore Wiprud, *ex officio* member.

The Washington Orthopedic Club was host, April 22, to the Baltimore Orthopedic Club at the annual combined meeting, which was held this year in Washington at the Army-Navy Club. In addition to some 20 Baltimore orthopedists, there were surgeons present from Grand Rapids, Michigan, and Richmond and Winchester, Virginia.

Presiding officers were Drs. Everett J. Gordon and Milton C. Cobey. The following scientific papers were presented:

"The Use of Myanesin (Tolserol) with and without Tubocurarine in Low Back Pain," Dr. Eugene G. Lipow

"Retrosternal Dislocation of the Clavicle," Dr. Allen M. Ferry

"The Suction Socket Prosthesis," Dr. Gordon and Colonel A. W. Spittler

"Posterior Dislocation of the Shoulder," Dr. Paul O'Donnell

"The Chronic Arthritis of Reiter's Disease," Dr. Maurice Herzmark

"Albers Shönberg's Disease: A Review of the Pertinent Clinical Data with a Case Report," Dr. Alfred E. Jackson

"Bone Diseases in the Early American Indian," Drs. William Tobin and Daniel Regan.

Baltimore orthopedists discussed the papers. The meeting was concluded with a dinner. Those present declared it one of the most successful meetings held during the past ten years.

The Washington Ophthalmological Society held its concluding meeting for 1949–50 at the Kennedy-Warren, May 8. Following dinner, the guest speaker, Dr. Jonas S. Friedenwald, of Baltimore, addressed the members on "The Vascular Changes in Diabetic Retinopathy."

New officers elected at this meeting were:

Dr. Thomas A. Egan, *President;* Dr. Everett S. Caldemeyer, *Vice President* (in charge of Program); Dr. Joseph Dessoff, *Secretary-Treasurer;* Dr. J. Spencer Dryden, *member of Executive Committee.*

The George Washington University Medical Society held its sixth meeting of the year, April 21. Dr. Thomas M. Peery, Director of the University's Postgraduate Instruction, arranged a faculty program for this meeting. The program follows:

"Prophylaxis of Motion Sickness: The Value of Some Drugs in the Prevention of Sea Sickness," Dr. Paul K. Smith, Professor of Pharmacology

"Newer Aids in the Diagnosis of Chronic Pancreatitis," Dr. Thomas Sappington, Clinical Instructor in Medicine

"Current Problems in the Study of Parasitic Amoebas," Dr. Angus McI. Griffin, Professor of Bacteriology

"Experimental Pulmonary Embolism in the Denervated Lung," Dr. Edward Beattie, Associate in Surgery; Dr. Brian Blades, Professor of Surgery; and Dr. William Elias, Fellow in Surgery.

At its 31st Annual Session in Boston, April 20, the **American College of Physicians** unanimously passed the following resolution: "The American College of Physicians is dedicated to progress in the art and science of medicine to the end that the best possible medical care may be made available to all the people. It welcomes plans that will advance these aims. It is the conviction of the American College of Physicians, however, that its objectives can be accomplished best in a free society unhampered by governmental control."

Photo by Leslie H. French, M. D

Dr. Reginald Fitz, of Boston, Mass., retiring President of the American College of Physicians, converses with Dr. William S. Middleton, of Madison, Wisc., President for 1950–51.

Among the registrants for this meeting from Washington were:

William M. Ballinger, William K. Billingsley, Irving B. Brick, Rear Admiral George W. Calver, Frederic D. Chapman, Peter D. Comanduras, Aloysius J. Connolly, Worth B. Daniels, Alva D. Daughton, Harry F. Dowling, Charles L. Dunham, W. LeRoy Dunn, Joseph Fazekas, E. Moore Fisher, Arden Freer, Leslie H. French, Maurice H. Friedman, Fred A. J. Geier, H. Arthur Grennan, Robert B. Havell, Frank S. Horvath, William L. Howell, Oscar B. Hunter, Sr., Hugh H. Hussey, Thomas F. Keliher, Clapham P. King, Ernest Q. King, James Alexander Lyon, R. Bretney Miller, John Minor, Henry A. Monat, James Moss, Charles W. Ordman, Lucy D. Ozarin, R. Massie Page. Hyman J. Rubitsky, Maurice A. Selinger, David O. Smith, John C. Sullivan, Robert G. Taylor, Charles W. Thompson, Harvey J. Tompkins, Paul R. Wilner and Wallace M. Yater.

In spite of the excellent speakers and interesting subject matter, the **1950 Annual Lecture Series** did not draw the attendance it merited. "Emotional Factors in Illness" was this year's theme. The following lectures were presented:

April 24: "Visceral Pain Mechanisms," Dr. Stewart G. Wolf, Jr., Assistant Professor of Medicine, Cornell University Medical College, and Assistant Attending Physician, New York Hospital.

May 1: "Personality in Peptic Ulcer," Dr. Albert J. Sullivan, Head of the Section on Gastroenterology, Ochsner Clinic, and Lecturer in Medicine, Tulane University.

May 8: "Emotional Factors in Cardiovascular Diseases," Dr. Edward Weiss, Professor of Clinical Medicine, Temple University School of Medicine.

The Medical Society's Committee on Postgraduate Education which sponsored the course consisted of Dr. Charles R. L. Halley, Chairman; Drs. William K. Billingsley, Brooks G. Brown, Clarence K. Fraser, William L. Howell, Oscar B. Hunter, Morris Kleinerman, Edward B. Macon, Eugene J. McDonald, George H. McLain, Maurice Mensh, Russell C. Payne and Alvin Seltzer.

The Committee on Medical Motion Pictures of the American Medical Association has completed the second revised edition of the booklet, "Reviews of Medical Motion Pictures." This edition contains 225 reviews of medical and health films previously published in the J.A.M.A. to January 1, 1950. Each film has been indexed according to subject matter. Copies are available at 25 cents each from the Order Department, American Medical Association, 535 North Dearborn Street, Chicago 10, Illinois.

To meet the increasing demand for experienced health personnel to staff technical health missions overseas, the **Division of International Health, Public Health Service,** is developing an intensive recruiting program. Members of technical health missions are needed by foreign governments to establish public health training, initiate health demonstrations, supervise specific projects, and to serve in an advisory capacity to officials on health matters.

Recruitment of physicians and specialists in related fields will be limited to highly qualified personnel who possess both expert knowledge in their technical specialties and the ability to inspire coöperation in a constructive program directed toward broad improvements in public health and the general advancement of human relationships.

Assignment will be made in the higher grades. Additional compensation will be provided in the form of allowances for overseas service.

Qualified health personnel may obtain application forms and further details concerning opportunities to participate in these programs by writing to the Chief, Division of International Health, Public Health Service, Federal Security Agency, Washington 25, D. C.

A Clinical Section on General Medicine and Experimental Therapeutics has been established as part of the research program of the National Heart Institute of the Public Health Service. Dr. Luther L. Terry, Chief of the Medical Service, U. S. Marine Hospital, Baltimore, has been appointed by Surgeon General Leonard A. Scheele of PHS to head the new Section.

At the outset the Section will function as a clinic in the Baltimore U. S. Marine Hospital, where approximately 60 beds will be devoted to the program. Problems of hypertension will be given major emphasis by the Section.

Dr. Terry is a graduate of Tulane University School of Medicine. Immediately prior to joining the PHS in 1942, Dr. Terry was a member of the faculty of the University of Texas in the departments of Internal Medicine and Preventive Medicine and Public Health. He is a diplomate of the American Board of Internal Medicine. Since 1944 he has held a faculty appointment at Johns Hopkins University School of Medicine in connection with his duties at the U. S. Marine Hospital in Baltimore.

Washington's first Health, Welfare and Recreation Conference, sponsored by the United Community Services, was held at the Shoreham Hotel, May 22. Four meetings were held simultaneously in the morning and afternoon. The topics assigned for the morning sessions were:

1. What can the community do to help the emotionally disturbed child?

2. Can Washington afford good medical care?
3. Meeting the challenge of old age.
4. Growing up in the family.

Mrs. Eugene Meyer, of the *Washington Post*, was Chairman for the first topic listed. Dr. Mabel Ross, Director of the Prince Georges County Mental Health Clinic, was one of the speakers.

The meeting devoted to the second topic, "Can Washington afford good medical care?" was presented entirely by physicians. Dr. Herbert P. Ramsey was Chairman. The panel of speakers consisted of the following: Dr. George Baehr, Director of the Health Insurance Plan of Greater New York; Dr. Frank D. Costenbader,President of MEDICAL SERVICE OF THE DISTRICT OF COLUMBIA; Dr. George C. Ruhland, Executive Director of the District Division of the American Cancer Society; Dr. V. L. Ellicott, Health Officer of Montgomery County Health Department; and Dr. Paul B. Cornely, Medical Director of Freedmen's Hospital.

Dr. Edward J. Stieglitz, Consultant in Geriatrics, Veterans Administration, was a member of the panel which discussed problems of the aging.

Dr. Arnold Gesell, Director of the Child Development Research Center, of Yale University, was the principal speaker for the meeting dealing with the family.

The topics considered during the afternoon sessions were:

1. Youth and leisure time—whose responsibility?
2. How can we assure our mental health?
3. How can we best rehabilitate our convicted offenders?
4. Growing up in the community.

Dr. Robert H. Felix served as chairman of the meeting which discussed mental health.

At the luncheon meeting, The Honorable Leverett Saltonstall, U. S. Senator and former Governor of Massachusetts, and John J. Corson, Executive of the *Washington Post*, were the principal speakers.

The Annual Meeting of the Potomac Chapter of the American College of Chest Physicians was held on April 26 at 1211 Cathedral Street, Baltimore, in conjunction with the Medical and Chirurgical Faculty of Maryland. The program consisted of a Panel Discussion on the Pneumonias, with Dr. Lawrence M. Serra, of Baltimore, as moderator. The following papers were presented:

"Acute Bacterial Pneumonias," Dr. Philip A. Tumultz, Assistant Professor of Medicine, Johns Hopkins University School of Medicine

"Viral Pneumonias Including Primary Atypical Pneumonia," Dr. Theodore Woodward, Assistant Professor of Medicine, University of Maryland School of Medicine

"Suppurative Pneumonias (Lung Abscess)," Dr. Brian Blades, Professor of Surgery, George Washington University School of Medicine

Dr. Edgar W. Davis, President of the Potomac Chapter, presided at this meeting. Dr. E. G. Beacham, of Baltimore, has served as Chairman of the Scientific Program Committee, and Dr. J. Winthrop Peabody as Chairman of the Publicity Committee.

The Section on General Practice held its regular meeting in the Medical Society's building on April 25. Dr. Lester Blumenthal, of the Headache Clinic, and Dr. Marvin Fuchs, of the Allergy Clinic, both of George Washington University, presented papers on "The Use of Histamine in Various Types of Headache." Dr. I. Phillips Frohman gave a case report on "Post-traumatic Headache and Treatment."

The Section on Otolaryngology held its last meeting of the season, May 16, at the Army-Navy Town Club. Dr. Francis L. Lederer, Professor of Otolaryngology of the University of Illinois, was the guest speaker. He addressed the members on " 'ENT Essentially Negative': Avoidance of Pitfalls in Otolaryngology."

The Woman's Auxiliary to the Medical Society of the District of Columbia installed new officers at its annual May luncheon at the Shoreham Hotel, May 10. The luncheon followed the annual business meeting in the Medical Society's building at 11 a.m.

Mrs. William M. Ballinger is the new Auxiliary President; Mrs. Richard E. Dunkley, President-elect, will take office in 1951. Other new officers installed were: Mrs. R. Stevens Pendexter, First Vice President; Mrs. Harry S. Lewis, Second Vice President; Mrs. Lawrence Rapee, Recording Secretary; Mrs. Noel Stow, Corresponding Secretary; and Mrs. James E. Wissler, Treasurer.

Mrs. J. Lawn Thompson, the retiring President, presented a three-year nursing scholarship to Miss

Eleanor Leach, who will train at Garfield Memorial Hospital. Miss Dorothy Quinn, who was previously awarded a similar scholarship, was presented with a graduation gift. Miss Quinn received her training at Georgetown University Hospital.

Another feature of the luncheon program was the presentation of bowling awards to members of the Auxiliary bowling league by Mrs. Frank Kreglow.

Mrs. John Edward Morris was in charge of arrangements for the luncheon.

The Clinico-Pathological Society held its annual meeting at the Chevy Chase Club, April 18. Dr. James N. Greear, President of the Society, presided. Highlight of the evening's program was an address by Major General Paul R. Hawley, Director of the American College of Surgeons, on "Trends in American Medicine Today."

The last meeting of the year for the **Osler Society** was held on May 15 at the home of Dr. Walter W. Boyd in Bethesda, Md. Dr. T. Dale Stewart of the Smithsonian Institute discussed "Recent Studies in Physical Anthropology of Interest to the Medical Profession."

Physician-Veterans of World War II met on May 24 in the Medical Society's building. "The Doctor's Position in Civil Defense" was presented by Dr. A. Claggett Gray, Dr. William D. Claudy and Colonel William L. Wilson, MC, USA, Special Assistant to the Surgeon General on Civil Affairs.

The D. C. Society for the Prevention of Blindness has prepared a very comprehensive central index of resources for eye care which should be an aid in directing people to the appropriate place in the community to secure help in conserving vision or adjusting to poor vision. The 24-page pamphlet is called "Resources for Eye Care in Washington, D. C., Montgomery and Prince Georges Counties, Maryland, and Alexandria, Arlington and Fairfax Counties, Virginia." In addition to the index, there is a brief description of each institution and how the work is carried on. Physicians may secure a copy of the pamphlet free upon request by telephoning Republic 0378 or 8058.

The Louis Mackall Medical Society enjoyed its annual outing at the Kenwood Country Club, May 10, with an afternoon of golf, followed by cocktails and dinner.

Dr. Marcel Foret, who was elected President at the April meeting, presided at the dinner. Mr. Louis Mackall, Jr., son of Dr. Louis Mackall, for whom the Society is named, was present, as was Dr. A. Y. P. Garnett, charter member and a close friend of Dr. Mackall. Mr. Theodore Wiprud, Secretary of the District Medical Society, was also one of the honored guests.

Other officers elected at the April meeting were Dr. Harvey F. Kreuzburg, Vice President, and Dr. Robert B. Nelson, Secretary-Treasurer.

A number of physician-members were present at the **Eastern High School Alumni Association reunion,** April 26, when graduates of 1901, the Fifty-year Class, were honored. Dr. Allen S. Cross, President of the Association, paid special tribute to Dr. R. Lee Spire, who was a member of this class. Dr. Cross also paid tribute to the late Dr. Henry R. Schreiber, a graduate of Eastern High School.

Two Certificates of Achievement were awarded on this occasion. The first went to Major General Anthony McAuliffe, the hero of Bastogne, who is now Chief of the Chemical Corps of the U. S. Army, and the second to Mr. Watson Davis, head of *Science Service.*

The 46th Annual Meeting of the National Tuberculosis Association was held at the Hotel Statler, April 24–27, concurrently with meetings of the American Trudeau Society and the National Conference of Tuberculosis Secretaries. Dr. Arthur C. Christie, who was medical director of Washington's 1948 Chest X-ray Survey, addressed the closing session of the NTA conference.

The District of Columbia Tuberculosis Association convened for its 48th Annual Meeting at the National Headquarters of the American Association of University Women, April 24. Dr. David T. Smith, of Durham, N. C., the new President of the NTA, was the principal speaker; his subject was "The Job Ahead."

Among those elected to the Board of Directors of the District Association were Dr. Frederick C. Fishback and Dr. Robert Bier. Dr. Fishback will serve for three years, and Dr. Bier, for two years.

On May 9 the Board of Directors met for election of officers. William E. Leahy was reëlected President of the Association. Mr. Leahy was also appointed a member of the NTA Board of Directors at its business session as was Dr. John A. Sims, of Alexandria. Clarence Davis, Professor of Health Education at Miner Teachers College, was elected Vice President of the local group, succeeding Dr. Howard M. Payne. Reëlected were: Dr. Thelma Hunt, Secretary; Bernard L. Amiss, Treasurer; Dr. James J. Feffer, Charles E. Bish and Edward B. Persons, members of the Executive Committee.

The Washington Camp for Diabetic Children will be open during the month of July at the Christ Child Farm for Convalescent Children in Rockville, Maryland. This Camp was organized in 1937 and was the seventh such camp to be established in the United States. Application blanks may be obtained from Dr. K. Hammond Mish, 1726 Eye Street, N. W.

In lieu of the Surgeon General's Index, the discontinuance of which was announced recently, **the Card Division of the Library of Congress** will duplicate (by the multilith process) and sell single copies of catalog cards on a subscription basis of $100 per year. Card shipments will be made every two weeks.

These cards represent medical titles (for which there are no Library of Congress printed cards) catalogued or recatalogued by the Army Medical Library and will total approximately 10,000 for the year 1950 beginning January 1.

Dr. I. Phillips Frohman, President of the D. C. Chapter of the American Academy of General Practice, asks that physicians who were sent return card questionnaires fill out the cards as indicated and send them either to Dr. Frohman, 2924 Nichols Avenue, S. E., Washington 20, D. C., or to Dr. Sherman A. Thomas, 4301 48th Street, N. W., Washington, D. C.

The Department of Physical Medicine of George Washington University Hospital was presented with a check for $3,261.98 by the Civilian Rehabilitation Committee. The check was presented to Dean Walter A. Bloedorn, of the School of Medicine, by Mrs. Harold H. Burton, wife of the Supreme Court Justice and President of the Committee. The gift will be used to purchase additional equipment for the Department of Physical Medicine.

Dr. Harry F. Dowling took up his new duties as Professor and Head of the newly established Department of Preventive Medicine at the University of Illinois College of Medicine, Chicago, on June 1. With the establishment of the Department of Preventive Medicine, the University plans to initiate several new courses and research investigations in the field of infectious diseases and in the sociologic aspects of medicine to supplement its present program.

Dr. Dowling, a pioneer in the field of antibiotics, has done extensive research and investigation in the application of the sulfonamides and antibiotics to the treatment of pneumonia and meningitis. These studies, have been carried on under his direction at Gallinger Municipal Hospital.

Dr. Dowling has served on the faculty of George Washington University School of Medicine, his alma mater, for 16 years. Since 1941 he has held the title of Clinical Professor in Medicine. He has been engaged in private practice in Washington since 1934.

His book on "The Acute Bacterial Diseases: Their Diagnosis and Treatment" was published in 1948. He has written numerous articles for scientific journals, many of them having appeared in the MEDICAL ANNALS OF THE DISTRICT OF COLUMBIA.

He is a Fellow of the American College of Physicians and the American Medical Association; a diplomate of the American Board of Internal Medicine; and a member of the American Society for Clinical Investigation, the American Federation for Clinical Research, and other scientific organizations. He has taken an active part in the activities of the Medical Society of the District of Columbia. He has served as Chairman of the Program Committee and as a member of the Board of Censors; for the past two years he has been Chairman of the Committee on Public Health. He has also served as a Trustee of MEDICAL SERVICE OF THE DISTRICT OF COLUMBIA.

The congratulations and good wishes of Medical Society members go with Dr. Dowling to his new post.

Upon the suggestion of the Advisory Committee of the **Coöperative Medical Advertising Bureau of Chicago,** which is responsible for securing most of the national advertising which appears in the MEDICAL ANNALS, the Board of Trustees of the AMA voted to change the name of CMAB to **State Journal Advertising Bureau of the American Medical Association,** effective at once.

Dr. James Alexander Lyon was installed President of the American Therapeutic Society at its 51st Annual Meeting in Boston, April 13–16. **Dr. Oscar B. Hunter** continues in office as Secretary of the Society.

Dr. Lyon, nationally recognized cardiologist, was Professor of Clinical Cardiology at Georgetown University School of Medicine from 1929 to 1940. During the same period he was attending cardiologist and Chief of the Cardiac Clinic at Emergency Hospital. For many years he was consulting cardiologist at Children's, Doctors, Homeopathic and Columbia Hospitals. From 1916 to 1925 he served with distinction in the Medical Corps of the U. S. Army; he resigned with the rank of Major. He joined the AEF in 1917; for his outstanding services overseas he received numerous citations and decorations from his own Government and from foreign countries.

Drs. Donald Stubbs, Edward B. Tuohy and Philip J. Lowenthal attended the Annual Meeting of the Southern Society of Anesthesiologists, which met in the Hotel Jefferson, St. Louis, Mo., March 31 and April 1. All three physicians took part in the program. Dr. Stubbs presented a paper, prepared jointly with Drs. Paul Elsberg and John Andrina, on "Avertin for Basal Anesthesia." On the same day, March 31, Dr. Tuohy read a paper on "Hypertensive Episodes during Anesthesia." On April 1, Dr. Lowenthal presented a paper prepared jointly with Dr. Arch S. Russell on "Recovery Rooms: Economy and Lifesaving Aspects."

Dr. Stubbs is the new President-elect of the Society. He served during the past year as Vice President. Other new officers are: Dr. Harvey C. Slocum, Galveston, Texas, President; Dr. R. M. S. Barrett, St. Louis, Mo., Vice President; Dr. John Adriani, New Orleans, La., Secretary-Treasurer.

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, headed by Dr. Henry A. Grennan, through which requests for speakers for lay groups are filled.

Date	*Speaker*	*Subject or Title*	*Organization*
April 16	Dr. Leopold E. Wexberg	Family Life and Social Code	Washington Ethical Society
April 19	Dr. Herbert P. Ramsey	Needs and Methods in Medical Care	Zonta Club of Washington
April 21	Dr. Leopold E. Wexberg	The Alcoholic Rehabilitation Program in the District of Columbia	Public Health Committee, Washington Board of Trade
April 24	Dr. James J. Feffer	Tuberculosis	Ludlow Peabody Parent-Teachers Association
April 25	Dr. Aris Carpousis	Film on "What You Should Know About Polio" and comments	Order of Ahepa
April 28	Dr. Leopold E. Wexberg	The Alcoholic Rehabilitation Program in the District of Columbia	Junior Chamber of Commerce
May 5	Dr. Preston McLendon	Importance of Physical Examination in Adoption Proceedings	Children's Protective Association
May 9	Dr. Eugene J. McDonald	X-ray Treatment of Non-neoplastic Diseases	Alexandria Community Clinic
May 14	Dr. Edith H. Weigert	Psychiatry and Sin	Mother's Class and Clyde Kelly Class for Men, Chevy Chase Presbyterian Church
May 18	Dr. P. S. Constantinople	The Washington Headache	Sibley Hospital Auxiliary

Dr. Walter Freeman, President of the District Medical Society, presented the Academic Lecture before the American Psychiatric Association at its annual meeting in Detroit, May 4. Dr. Freeman chose for the topic of his address, "Psychosurgery."

On May 6 Dr. Freeman was in New York City where he gave a lecture before the Intercollegiate Psychological Association on "An Evaluation of Psychosurgical Methods in the Treatment of Psychoses."

Dr. Freeman lectured on psychosurgery before the staff and guests of the Armed Forces Institute of Pathology, March 23. A capacity audience was on hand to hear his exposition on the technics of lobotomy, which he illustrated with slides and films.

Theodore Wiprud, Secretary of the District Medical Society, attended the Sixth Semi-annual Meeting of the Council on National Emergency Medical Service, sponsored by the AMA, which was held at the AMA Headquarters Building in Chicago, May 6. Civil defense, with special reference to biologic and chemical warfare, was discussed by Dr. Norvin C. Kiefer, Director of Health Resources Division, National Security Resources Board; civil defense, with special reference to atomic warfare, was presented by Dr. George M. Lyon, Chief of the Radioisotope Section, Research and Education Service, Veterans Administration. The NSRB-AEC training program in the medical aspects of atomic warfare was discussed by Dr. Charles L. Dunham, Chief, Medical Branch, Division of Biology and Medicine, U. S. Atomic Energy Commission.

Most of the afternoon was devoted to a roundtable discussion of the part state, county and local medical societies can play in the AEC-NSRB program. Mr. Wiprud served as moderator for this discussion.

Attending the meeting from the Washington Office of the AMA were Dr. Frank E. Wilson, Deputy Director, and Mr. D. M. Perry, Business Manager.

The District Commissioners have appointed **Dr. Edwin P. Parker III and Dr. Cyril A. Schulman** to initiate home care services to patients who are eligible for Gallinger Municipal Hospital's home care program. This program, under the direction of Dr. Sidney Shindell, is sponsored by the Health Department and financed almost entirely by Federal funds. It is designed to demonstrate how many patients can safely be released from hospitalization if proper care can be provided them in their homes. It has been estimated that such home care would cost as little as one third of present continued hospitalization costs.

The doctors appointed for the new project will visit the patients before discharge from the hospital and follow their progress and provide necessary medical services in their homes.

Dr. L. Conner Moss fulfilled an air assignment for the Army Medical Department Overseas Consultant Program by flying to the Panama Canal Zone, where he spent two weeks, April 3 to 18. He lectured and made teaching ward rounds at Ancon Hospital and visited the Navy Hospital and the Leper Colony.

Dr. John H. Lyons will leave for a similar assignment in Japan, July 5, from the Suisan Air Field in California. Dr. Lyons will conduct clinics, make ward rounds, give lectures and engage in other teaching functions during his visit to the Far East Command.

Dr. Sidney Ross, Associate Attending Pediatrician at Children's Hospital, has been invited to address the Sixth Annual International Pediatrics Congress, meeting in Zurich, Switzerland, July 22–29. He will report on "The Use of Chloromycetin and Aureomycinin Infants and Children."

A research fellow of the National Institutes of Health, Dr. Ross has conducted special studies in antibiotics at Children's Hospital for the past two years.

Dr. Charles Stanley White was invited to Charleston, S. C., to address the Medical Society of South Carolina in the Simon Baruch Auditorium, Apri 15. Dr. White spoke on the "Management of Massive Hemorrhage of Peptic Ulcers."

Dr. Winfred Overholser, Superintendent of St. Elizabeths Hospital, took part in a forum at Columbia University, April 23, on the study and prevention of crime.

At the recent meeting of the National Tuberculosis Association in Washington, D. C., **Dr. John B. Barnwell,** Chief of the Tuberculosis Division of the

Veterans Administration Department of Medicine and Surgery, received the 1950 Trudeau Medal for his accomplishments in the fight against tuberculosis.

Dr. Barnwell was President of the American Trudeau Society in 1943. After 18 years as a member of the faculty of the University of Michigan, he resigned to join the VA Department of Medicine and Surgery. He has been Chief of the Tuberculosis Division since 1946.

Dr. Edward J. Stieglitz was invited to address the 158th Annual Meeting of the Connecticut State Medical Society, which was held in Waterbury, Conn., May 2, 3 and 4, 1950. Dr. Stieglitz' subject was "Emotional Hazards of Senescence."

Colonel William S. Stone, Chairman of the Medical Research and Development Board, Office of the Surgeon General, since 1946, has been appointed Commandant of the Army Medical Department Research and Graduate School. He replaces **Colonel Elbert DeCoursey,** who has been appointed Deputy Director of the Armed Forces Institute of Pathology.

Dr. Leonard A. Scheele, Surgeon General of the USPHS, was Chairman of the U. S. delegation attending the third World Health Assembly, which opened in Geneva, May 8.

Dr. Fred L. Soper, Director of the Pan American Sanitary Bureau, also attended the Assembly.

Dr. L. W. Larson of Bismarck, N. D., will represent the AMA on the technical advisory committee on blood of the National Security Resources Board. **Dr. Herbert P. Ramsey,** of Washington, is the alternate representative.

Dr. Charles P. Cake was elected to the Board of Directors of the Virginia Tuberculosis Association, which closed its two-day annual meeting in Alexandria, April 22.

MEMBERSHIP

The following applicants for membership were duly elected to membership at the meeting of the Executive Board, April 24, 1950, in accord with Amendment XI, Section 2, of the Constitution and By-laws of the Society:

Active Members

Virginia Patterson Beelar, 1601 Argonne Place, N.W.
Abraham W. Danish, 401 Ridge Road, S.E.
Cornelius P. Frey, 1532 16th Street, N.W.
Walcutt W. Gibson, 1503 Good Hope Road, S.E.
James Roy Goodson, 1221 Jefferson Street, N.W.
Richard J. Kemp, 1801 Eye Street, N.W.
Charles F. Kincheloe, 1801 K Street, N.W.
Lorman L. Levinson, 2529 Pennsylvania Avenue, N.W.
Karl F. Welte, 6012 Sonoma Road, Bethesda, Md.
Rowland F. Wilkinson, 1503 Good Hope Road, S.E.

Associate Members

Thomas A. Haedicke, 5624 Kansas Avenue, N.W.
Raymond A. Lawn, Qtrs. #83, Bolling Air Force Base
Ernst Trier Morch, Franconia Road, R.F.D. 5, Box 30, Alexandria, Va.

The following applicants for membership will be voted on at the meeting of the Executive Board, July 24, 1950:

For Active Membership

George J. Fleury, Jr., Georgetown University—1941
Gerhart J. Gordon, University of Berlin (Germany)—1930
Avrohm Jacobson, Tulane University—1944
George I. Mishtowt, Georgetown University—1942
Robert R. Montgomery, George Washington University—1945
Timothy F. O'Donovan, Georgetown University—1947
Laszlo Ormandy, Franz Joseph University—1936
Grady W. Phillips, Emory University—1944
William Stark, University of Louisville—1943

For Associate Membership

Theodore C. Keller, Tulane University—1942
Harry Kessler, Long Island College of Medicine—1931
Alfred Raymond Lapin, Hahnemann Medical College—1943
Edgar L. Marston, Medical College of Virginia—1948
Norman Oliver, Long Island College of Medicine—1938
Charles I. Warfield, Georgetown University—1945
Lorenz E. Zimmerman, George Washington University—1945

Recent changes in membership status:

Active to Associate

Kenneth E. Blundon
William Frank
Frank E. Gibson, Jr.
Josiah B. Henneberger
Russell K. Hollingsworth
Vita R. Jaffe
Samuel B. Pole III
Henry Rappaport
William A. Shannon
Charles P. Waite

Active to Affiliate

Wilfred Eastman
Joseph W. Stein
S. Jack Sugar

Associate to Affiliate

DeWitt E. DeLawter
David Eden
Richard E. Kelso
Peter N. Lombard
John A. Norcross

Active to Resident-Intern

A. Burton Mincosky

Active
Resigned

Robert H. Armstrong, Jr.
Gregg C. Birdsall
Rollin F. Bunch
William S. Detwiler
Jerome D. Frank
Lawrence F. Greenleigh
Lawrence C. Kolb
Seymour Lifschutz
Joseph P. Madigan
Charles G. McCormack
Jay McLean
Ben C. Ogle
Franklin B. Pedrick

Associate
Resigned

Jason Geiger
Marion R. King
John A. Mitchell
R. Clayton Rounds
Richard N. Sutton

BOOK REVIEWS

Geriatric Medicine—The Care of the Aging and the Aged, 2nd ed. Edited by EDWARD J. STIEGLITZ, M.S., M.D., F.A.C.P., Attending Internist, Suburban Hospital, Bethesda, Maryland (Chairman Staff 1945–47); Doctors Hospital, Washington, D. C.; Attending Internist (Geriatrics), Chestnut Lodge, Rockville, Maryland; Consulting Internist, Washington Home for Incurables; Associate, Washington School of Psychiatry; Special Lecturer, Institute of Industrial Medicine, New York University, Bellevue Postgraduate Medical School, New York City; formerly Associate Clinical Professor of Medicine, Rush Medical College, The University of Chicago. Price, $12.00. Pp. 773, with 180 figures. Philadelphia: Saunders, 1949.

The value of this well arranged book will be enhanced to the reader if it is appreciated that geriatric medicine is not a specialty in the strict sense, but rather that it covers a variety of fields and encompasses the various specialties in medical practice. It is the application of principles of senescence. Dr. Edward J. Stieglitz, who edited this composite treatise, and the 46 specialists who contributed have recognized the place that geriatrics holds in the practice of medicine. They have not attempted to make this a textbook of general medicine, but have included only that material which is directly pertinent to geriatric medicine. The subject matter covers a wide range and includes medical and surgical disorders as well as anesthesia, physical therapy, and neuropsychiatric problems of the aged. There are interesting chapters devoted to the care and guidance of normal aging and the aged.

There are short lists of references appended to the various chapters. The index is complete and the book well published.

This book can be recommended enthusiastically for all medical libraries and for all practitioners of medicine who see older patients.

S. K.

Clinical Pathology—Application and Interpretation. BENJAMIN B. WELLS, M.D., PH.D., Professor of Medicine, University of Arkansas School of Medicine, Little Rock, Arkansas. Price, $6.00. Pp. 397. Philadelphia: Saunders, 1950.

This book is designed primarily for the use of the practitioner as a handbook for ready reference in quickly obtaining useful information on laboratory procedures. Dr. Wells, who is a diplomate of both the American Board of Medicine and the American Board of Clinical Pathology, has been interested in clinical pathology for many years. More recently, as Professor of Pathology and at present as Professor of Medicine at the University of Arkansas, he has interested himself in the teaching of pathologic principles and technics to students. In this volume he has embodied as compact and complete a survey of the common laboratory procedures for the diagnosis of diseases as is possible in 390 pages.

Dr. Wells has systematized the text by dividing it into chapter headings covering the large group of diseases; this includes the infectious diseases, gastrointestinal, respiratory, genitourinary, blood, cardiovascular, and metabolic diseases. Under each heading the various entities are succinctly considered, giving the useful tests, their significance and their normal values. Plates are relatively infrequent but where useful, they are freely distributed. The important tests in practically every field are included and at least some mention is given even to many of the rarely applicable tests.

In the final two chapters of the book the use of laboratory studies in surgery and obstetrics is taken up in some detail and serves a useful purpose to the doctor who is interested in these particular specialties.

A short appendix is included which summarizes tests to be used in the pursuit of the diagnosis of particular symptoms. This also includes a summary of all the technics and normal values for many of the common tests used in the laboratory.

Dr. Arthur H. Sanford of the Mayo Clinic summarizes the usefulness of the book by a short foreword, stating ". . . while this book is not intended as a textbook of medicine nor a laboratory manual in any sense, it should find frequent use in the laboratory or the physician's office and deserves careful study by medical students and consultants."

O. Benwood Hunter, Jr., M.D.

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive reviews in the interests of our readers and as space permits. Physicians are urged to submit reviews of additional current books which, in their opinion, merit comment.

Urological Surgery, 2nd ed. Austin Ingram Dodson, M.D., F.A.C.S., Richmond, Va., Professor of Urology, Medical College of Virginia; Urologist to Crippled Children's Hospital; Urologist to St. Elizabeths Hospital; Urologist to St. Luke's Hospital and McGuire Clinic, with contributions by Randal A. Boyer, M.D.; Douglas G. Chapman, M.D., F.A.C.P.; Fred M. Hodges, M.D., F.A.C.R.; T. Leon Howard, M.D., F.A.C.S.; Guy Winston Horsley, M.D., F.A.C.S.; Linwood D. Keyser, M.D., F.A.C.S., Robert B. McIver, M.D., F.A.C.S.; Charles M. Nelson, M.D.; Williams E. Pembleton, M.D.; George C. Prather, M.D., F.A.C.S.; James H. Semans, M.D., F.A.C.S., and Lawrence O. Snead, M.D., F.A.C.R. Price, $13.50. Pp. 855, with 645 illustrations. St. Louis: Mosby, 1950.

A Manual of Cardiology, 2nd ed. Thomas J. Dry, M.A., M.B., Ch.B., M.S. in Medicine, Associate Professor of Medicine, University of Minnesota (Mayo Foundation); Consultant in Section on Cardiology, Mayo Clinic. Price, $5.00. Pp. 355, illustrated with 97 figures. Philadelphia: Saunders, 1950.

Saw-Ge-Mah (Medicine Man). Louis J. Gariepy, M.D. Price, $3.00. Pp. 326. St. Paul, Minn.: Northland Press, 1950.

Medical Gynecology, 2nd ed. James C. Janney, M.D., F.A.C.S., Associate Professor of Gynecology, Boston University School of Medicine; Associate Visiting Gynecologist, Massachusetts Memorial Hospitals. Price, $6.50. Pp. 454, illustrated with 108 figures. Philadelphia: Saunders, 1950.

Breast Deformities and Their Repair. Jacques W. Maliniac, M.D., Clinical Professor of Plastic Reparative Surgery and Associate Attending Plastic Reparative Surgeon, New York Polyclinic Medical School and Hospital, New York City; Attending Plastic Surgeon, Sydenham Hospital; Diplomate, American Board of Plastic Surgery. Price, $10.00. Pp. 193. New York: Grune & Stratton, 1950.

Proctology in General Practice. J. Peerman Nesselrod, B. S., M.S., M.Sc. (Med.), M.D., F.A.C.S., F.A.P.S., Associate in Surgery, Northwestern University Medical School; Associate Surgeon, Division of Proctology, Evanston Hospital, Evanston, Illinois; Certified by the Central Certifying Committee in Proctology (Founders' Group) of the American Board of Surgery; Commander (MC), USNR. Price, $6.00. Pp. 276, illustrated with 64 figures. Philadelphia: Saunders, 1950.

GUSTAVE HUGO SCHULZE, JR.
(1885–1950)

Gustave Hugo Schulze, Jr., well known Washington pharmacist and an Associate member of the District Medical Society, died on March 3, 1950, in Suburban Hospital, Bethesda, Md. Although Mr. Schulze sold his own business in 1945 and retired, he returned to his profession within six months. He was employed at Whittlesey's Drugstore in Bethesda when he suffered a cerebral hemorrhage which resulted in death.

Mr. Schulze was a native Washingtonian, born June 5, 1885. He received his pharmaceutical training at the National College of Pharmacy and was registered as a pharmacist in the District of Columbia in January, 1908. For many years he was manager of the old Ridgeway Pharmacy at Connecticut and Florida Avenues, N.W. He opened his own store, Schulze's Pharmacy, at 1828 Columbia Road, N.W., in 1926 and remained at that location for ten years. In 1936 he opened a new pharmacy at 1832 Columbia Road, N.W., where he continued in business until he sold out to retire in 1945. The drugstore still bears his name.

Mr. Schulze became an Associate member of the Medical Society of the District of Columbia in 1931. He was a member of the American Pharmaceutical Association and the Washington Board of Trade. He was a 32nd degree Mason and a member of Stansbury Lodge.

Surviving are his wife, Mrs. Ann Schulze, who resides at their home, 1012 Noyes Drive, Silver Spring, Md., and three sisters, Miss Hanna Schulze, Mrs. William Tice Heyser, and Mrs. Thomas J. Trodden, Sr., all of Washington.

Neurocirculatory Asthenia—Winik

(*Continued from page 314*)

the illness is functional. Especially important is this reassurance given during an attack of palpitation, trembling, or hyperventilation, at which time the benign nature of the episode can be indicated. It is necessary to uncover the presence of any external event or agent which might be operating in the precipitation of an emotional reaction. When discovered, such an external agent should be removed if possible. If this is not feasible, then the patient should be encouraged to accommodate himself to it as best he can. Symptomatic therapy can afford a certain amount of relief. Quinidine for frequent paroxysmal auricular tachycardia, atropine for the peripheral vasoconstriction and the sweating, and the barbiturates for insomnia have their place, as long as the patient understands the symptomatic character of the relief obtained. There is often a great deal of phasic variation in the number and intensity of symptoms, with periods of relative quietude.

In the acute variety therapy is usually successful. "Conditions leading to fear, excessive mental activity with tension, and long-continued inadequate methods of emotional or hypothalamic discharge are the three important groups of extrinsic factors" which are able to produce acute NCA in the completely normal person. Gaining the confidence of the patient, as with chronic NCA, is essential in aiding in the elimination or neutralization of the extrinsic factors. The psychiatrist plays his most definite role in helping those patients who have long-continued inadequate methods of emotional expression. The patients also need symptomatic relief and diversional activity.

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Flat Feet in Infants—Herzmark

(*Continued from page 316*)

siderable disability, and civilized man can well emulate his primitive ancestors in finding ways to help his children develop strong feet. While more care is needed with those who have congenitally weak feet, all infants learning to walk should be helped to develop proper habits of posture and gait.

As a means of providing an irregular resilient surface on which baby may learn to walk, a play-yard pad has been devised which is made of sponge rubber and has a specially designed surface which prevents passive use of the feet by automatically exercising them and developing proper walking habits.[1] Since infants of urban families spend much of their time in a play-pen, the floor of this enclosure can be the means of providing a surface which simulates in principle the irregular ground on which children of primitive peoples develop strong, agile feet (figure 2-B).

SUMMARY

The feet of newborn babies should be examined for evidence of valgus as well as varus deformity. Treatment should be started early and observation maintained until walking is started. A semiresilient, irregular walking surface exercises the muscles of the feet and legs and automatically prevents pronation.

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Gastric Cancer—Warfield

(*Continued from page 320*)

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Survey of Physicians' Incomes

(*Continued from page 332*)

A short form will be sent once only to every other name in the file. Of the remaining 100,000 names, every fourth will be selected. To these will go 10,000 short forms and 15,000 long forms, with this distinction—the return franked envelopes will carry a code number which will identify the physician to the Bureau of Medical Economic Research alone. All of the addressing will be done in the headquarters of the AMA.

The sole purpose of the code number is to enable the Bureau of Medical Economic Research to address a follow-up letter to those not replying to the first request. Physicians need have no suspicion about the code number because when the reply is received, the questionnaire will be separated immediately from the envelope and the identity will be lost.

Physicians will be doing the medical profession a service by filling out the forms and returning them as soon as possible.

Report of Executive Board

(*Continued from page 340*)

dividuals and committees responsible for the meeting are under considerable pressure until the last detail has been attended to. The ASSEMBLY is a nine-month task but the last few months before the meeting are the busiest of all.

There is never any let-up in the Society's activities. The summer, however, is devoted to preparation and it is often a very busy period.

Our Living Past Presidents—Kerr

(*Continued from page 334*)

Dr. Kerr's vigorous nature and attention to anatomical details in the operating room have earned him the fear and great admiration of many doctors in this country. He has been repeatedly thanked by them for his teaching of clinical surgery.

The respect and warm personal esteem in which he is held by his many friends and colleagues have been given emphasis by the recent establishment of the Harry H. Kerr Award at Garfield Memorial Hospital. This is an annual award to be given to the member of the house staff writing the best paper on a subject of medical interest. This is a fitting tribute to a truly master surgeon.

THOMAS BRADLEY, M.D.

MEDICAL ANNALS
of the
DISTRICT OF COLUMBIA

VOLUME XIX *July, 1950* NUMBER 7

A NEW TECHNIC FOR PORTACAVAL ANASTOMOSIS*

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ANASTOMOSIS of the portal vein to the inferior vena cava has become an established procedure for the treatment of portal hypertension, providing the blockage lies in the portal vein or liver and the hypertension is severe enough to cause bleeding from esophageal varices. Another application may be in radical pancreaticoduodenectomy for carcinoma of the head of the pancreas in cases in which the tumor is imbedded in the portal vein and it is not possible to dissect it free. In such a case it may be possible to perform the portacaval anastomosis as a first-stage procedure along with cholecystojejunostomy. The portal vein could then be resected along with the pancreas in a second-stage procedure.

The application of portacaval anastomosis to patients with portal hypertension has been held up largely by two factors: (1) This type of patient is a poor surgical risk, especially if cirrhosis of the liver is the primary lesion. (2) The procedure has been long, often taking 4 to 5 hours. This combination of poor risk and long procedure has deterred most surgeons from attempting the operation. Therefore, we felt that if portacaval anastomosis in portal vein obstruction could be effected with the ease of an entero-enterostomy in small bowel obstruction, it would become a more widely used procedure. Accordingly, this study was undertaken to develop a faster, safer technic of anastomosing the portal vein to the inferior vena cava.

Our first step was to repeat the experiments of Blakemore and Lord,[1] using vitallium tubes. Their technic consisted of end-to-side anastomosis of the portal vein to the inferior vena cava by cuffing the portal vein on a vitallium tube and implanting it in the side of the inferior vena cava with 2 concentric silk purse-string sutures. A high mortality ensued, and 2 difficulties stood out, (1) bleeding during dissection of the portal vein caused by numerous small vessels in the loose areolar tissue of the hepatoduodenal ligament, and (2) intestinal anoxemia, if the anastomosis took longer than 15 to 20 minutes, resulting in death.

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* From the Department of Surgery, Doctors Hospital, Washington, D. C., and the Surgical Research Laboratory of Georgetown University School of Medicine. This investigation was supported by a grant from the Office of Naval Research, United States Navy.

In 1946, while the experiments were being performed, the work of Smith and Potts[2] was published, describing their clamp which allowed the blood to flow through the aorta while an aorta-pulmonary anastomosis was performed. It occurred to us that we could apply the principle of using 2 Smith-Potts clamps, each pinching off a small portion of one of the veins, the flow of blood continuing to go through the main portion of each vessel while the anastomosis was performed on the segments enclosed in the clamps. However, with the Smith-Potts type of clamp it was necessary to free the entire circumference of the vein to apply it; in addition, the construction of the occluding jaws of the clamps was too heavy to permit them to be applied to veins successfully.

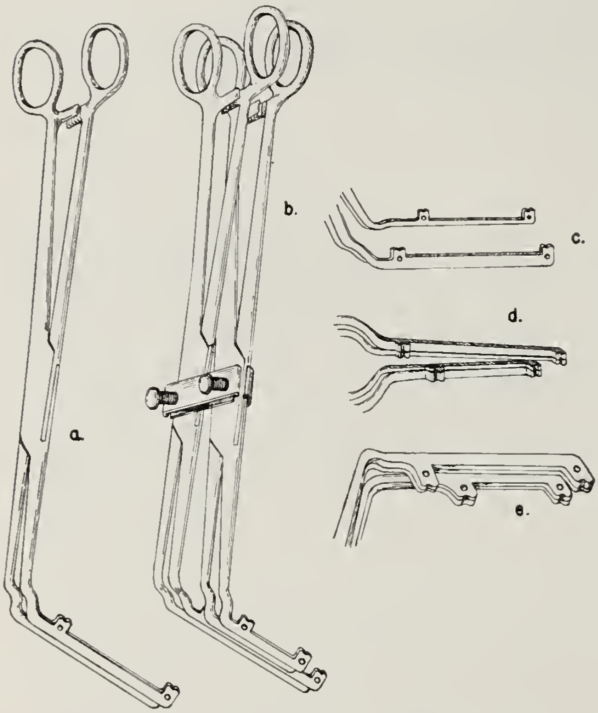

FIGURE 1. Drawings of clamps:

A. Larger clamp for inferior vena cava.

B. Larger caval and smaller portal vein clamp, crossed and maintained in position with holding device.

C. Side view showing relative size of clamp jaws. Note that portal clamp fits inside larger caval clamp, and its jaw blades are much thinner.

D. Note that inner jaw of each clamp is thinner than the corresponding outer jaw.

E. View showing portal clamp inside caval clamp.

We turned our attention, therefore, to halfmoon clamps which were described in the older literature by Horsley.[3] The advantages of this type of clamp are (1) that blood continues to flow through the main portion of each vessel as with the Smith-Potts clamp, and (2) it is necessary to dissect only the anterior portion of each vessel before application.

After thorough trial with clamps similar to those used by Horsley we found that, although they would work satisfactorily on animals, they were not fool-proof enough to be recommended for use in human surgery, because with movements of the clamp or traction on the intestines by the assistant the vein tended to slip. The width of the segment enclosed by the clamp was small (in order to leave some of the vein free for the flow of blood); when the enclosed segment was opened to perform the anastomosis, the width tended to contract 50 per cent, and, if this width were further decreased by slippage, the anastomosis could be performed only with difficulty. We reviewed various methods for preventing slippage used in surgical instruments and found that for the most part they consisted of methods of increasing friction. Friction is proportional to the force perpendicular to the two surfaces in contact, and to the finish of surfaces. Within limits it is not affected by the area in contact. The use of force to produce friction by means of clamps on blood vessels is limited, since in excess of certain amounts it will crush the wall of a vein and cause necrosis and thrombosis. In this respect screw adjustments are disadvantageous in that they tend to put too much pressure on the wall of the vessel. The usual method of changing the surface finish to increase friction has been to have minute furrows engraved in the metal. Another method has been that of making small teeth that actually bite into the wall of the vessel. A somewhat different method of holding the vessel is the splinting action of a circular type such as the Smith-Potts clamp.

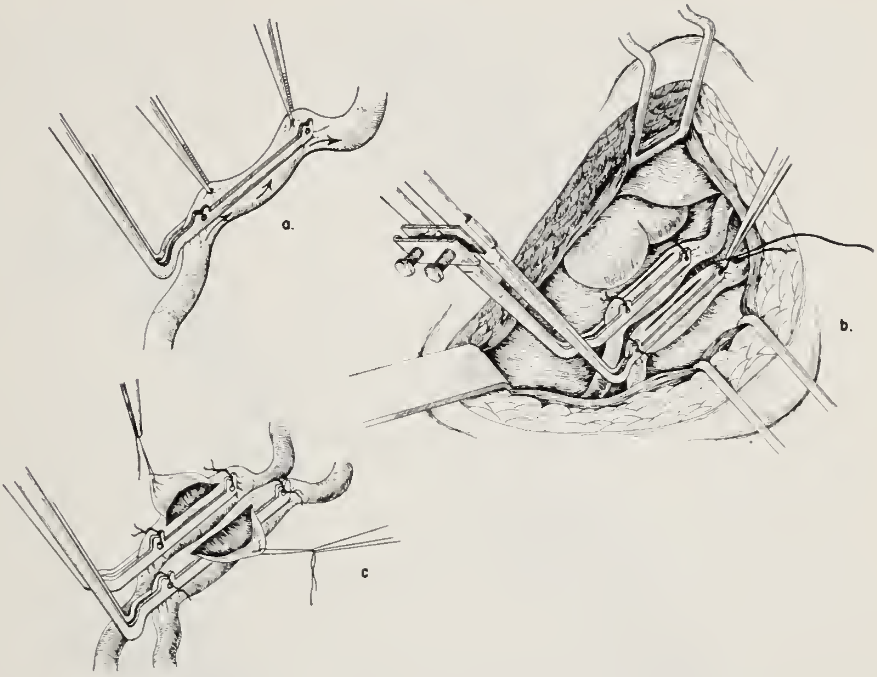

FIGURE 2. Clamps applied (transfixed) through veins:

A. Vein is maintained in position on clamp with thumb forceps until transfixion sutures are placed.

B. Transfixion sutures are placed and incisions made.

C. Traction sutures placed to hold outer lip of incision in each vein open.

Our method of preventing slippage depends on a transfixion suture. Using this principle we have designed several types of slip-proof, continuous-flow clamps which permit blood to flow while the side-to-side anastomosis of the portal vein to the inferior vena cava is being performed. The type shown in the drawings (figure 1) has proved most satisfactory, because it is possible to perform the anastomosis without mobilizing the posterior portion of the vein; the dissection is much less, and the bleeding is greatly diminished.

At each end of the jaws a hole is drilled wide enough to allow a number 9 curved atraumatic needle to be put through without difficulty. We have empirically used a diameter of 3/64 inch. After the clamp has been placed, a suture is passed through the hole and tied in the cleft. This is then repeated at the other end. Experimentally we have found no evidence of trauma from these holding stitches. The area through which each stitch goes is compressed by the clamps and this condensed area does not rip.

The smaller instrument is designed for the portal vein, the larger for the inferior vena cava. The shank of each instrument is long and bent to a right angle to allow its use in a small deep cavity. The depth of the jaws is thin to give a maximum segment to permit making the anastomosis and at the same time to allow a maximum of free vein for the passage of blood. To prevent overriding the ends of the jaws are wide. In each end of the jaws the previously described hole is drilled.

The features enumerated below were provided to make it easy to bring the 2 segments of the vein close together as shown in figure 2. These are:

1. The inner jaw of each clamp was made thin.
2. The smaller jaw fits inside the larger one.
3. The horizontal portion of the shank of each clamp is curved, one being a mirror image of the other. This permits the shank of the smaller clamp to be crossed over the larger.

To reduce the work of the assistant in approximating the clamps, the angle between the vertical and horizontal portion of the shank is

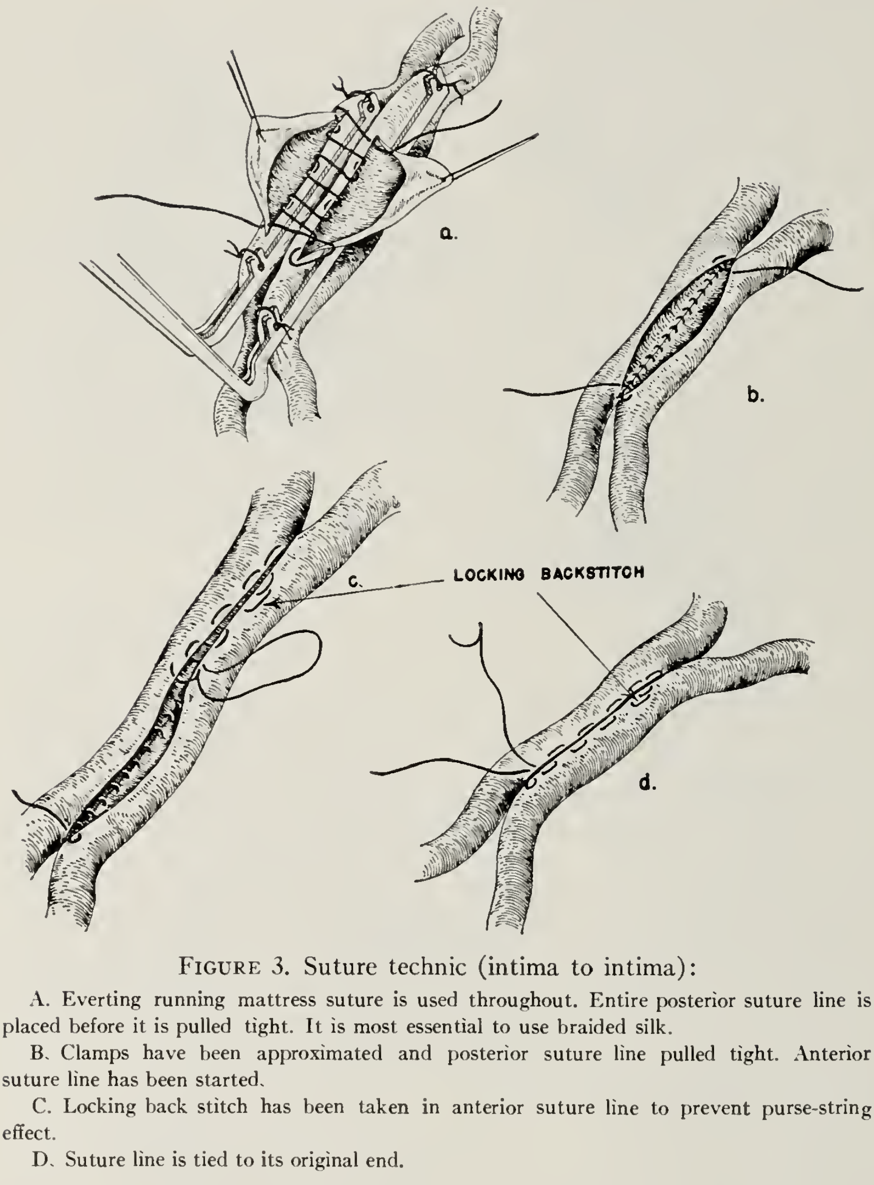

FIGURE 3. Suture technic (intima to intima):

A. Everting running mattress suture is used throughout. Entire posterior suture line is placed before it is pulled tight. It is most essential to use braided silk.

B. Clamps have been approximated and posterior suture line pulled tight. Anterior suture line has been started.

C. Locking back stitch has been taken in anterior suture line to prevent purse-string effect.

D. Suture line is tied to its original end.

made the same in the 2 instruments, and a holding device is provided.

The actual technic of using the clamps on dogs is as follows: A subcostal incision is used. After the intestines are packed off, a Balfour self-retaining retractor is inserted. In experi-mental animals, in order to have a high portal pressure and thus keep the anastomosis from thrombosing, it is necessary to ligate the portal vein after the anastomosis has been performed. To keep from traumatizing the functioning anastomosis the ligature is placed before the vessels are anastomosed, but is not tied. The peritoneal covering is dissected from the segment of the portal vein to which the clamp is to be applied. Because of bleeding, it is not desirable to dissect the posterior surface of the portal vein. The smaller clamp is then applied, and the holding sutures are inserted. A similar dissection is then carried out on the inferior vena cava; the large clamp is applied, and the holding sutures are inserted. A longitudinal slit is made in the enclosed segment of each vein with fine, sharply pointed scissors. The intimal surface is washed free of blood with saline. The posterior suture line is placed with the clamps held approximately one-half inch apart. In this method it is important that the suture material be braided silk rather than twisted silk.* An everting running mattress stitch approximating intima to intima is used. The suture line is begun at the inferior corner (nearest the operator) and is taken superiorly away from the operator. After the entire posterior suture line is placed, the loops are tightened and the clamps are crossed. The everting mattress suture is continued around the superior corner and approximation of the anterior lips of the two vessels is begun. Two or 3 back stitches are then taken to keep the suture line taut. The anterior suture line is then placed and secured by tying to the original end at the lower corner. According to present concepts of suturing, it would be more orthodox to break the suture line by tying to interrupted sutures at 3 points. However, the above technic, as demonstrated in figure 3, works and is faster.

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* Deknatel 4-0 braided silk on a no. 94 needle was used throughout.

Mattress sutures are then placed between the 2 veins above and below the anastomosis to take the tension off of the hemostatic suture line. The clamp on the inferior vena cava is released first because of low pressure on this side of the shunt. Any bleeding points are controlled with interrupted mattress sutures. The holding sutures are cut and removed. The portal clamp is then slowly released and removed, and the previously placed ligature on the portal vein superior to the anastomosis is tied.

The fact that the various types of anastomoses between the portal and caval systems have not been adequately evaluated is shown by a recent quotation, "In portal hypertension with bleeding esophageal varices, the relative merits of the spleno-renal, end-to-side portal caval, and side-to-side portal-caval anastomoses have yet to be determined."[4]

The advantages of this technic may be enumerated:

1. Blood continues to flow through both vessels while the anastomosis is being performed.
2. It approximates intima to intima.
3. If the anastomosis becomes occluded, blood continues to flow through old channels because a propagating thrombus usually does not form.
4. It is not necessary to mobilize the entire circumference of the portal vein, but only the anterior surface of a short segment. The special clamps may then be applied and the anastomosis carried out with a minimum of bleeding. The need for this advantage is shown by the following quotation: "Direct anastomosis of the portal vein to the inferior vena cava may frequently be impossible due to the extreme degree of vascularity in the region of the gastro-hepatic ligament."[5]
5. With a lateral anastomosis a certain proportion of blood continues to flow through the liver, decreasing the disturbance of liver metabolism.

N.B. Although we have successfully used this technic on a large number of animals, this is a preliminary report.

Appreciation is extended to Dr. Charles Stanley White for suggesting the project; to Dr. J. Ross Veal for valuable practical advice in the laboratory; to Dr. J. Treacy O'Hanlon for valuable suggestions; to Dr. Neal Berry for assisting at the beginning of this project; and to Drs. O. B. Hunter and E. A. Bocock for negotiating the project.

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HYPOPITUITARISM DUE TO POSTPARTUM NECROSIS OF THE ANTERIOR LOBE OF THE PITUITARY GLAND

Report of Three Cases[*]

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IN RECENT years Sheehan[1–5] has emphasized that deliveries complicated by severe hemorrhage and shock are frequently followed by necrosis of the anterior lobe of the pituitary gland. He has helped to eliminate much of the confusion in the literature that followed Simmonds'[6] description in 1914 of the disease that bears his name. Because the patients described by Simmonds were malnourished, it was assumed by many physicians that cachexia occurred in all adults with hypopituitarism and that unexplained cachexia was usually due to pituitary hypofunction.[7] As a result of this confusion, about half of the patients described in the literature as examples of Simmonds' disease are actually examples of anorexia nervosa.[8] In the pictures illustrating Simmonds' disease most of the current textbooks have used pictures of patients with cachexia due to anorexia nervosa. As pointed out by Sheehan, the most common cause of hypopituitarism in women is necrosis following severe postpartum hemorrhage. Because of the coincident anorexia some of these patients do become cachectic, but the majority of them are able to maintain their normal weight, and a few of the less severely affected patients even become obese.[3] The changes noted in these patients are due to the hypothyroidism, hypoadrenocorticism, and hypovarianism, which results from the decrease in the secretion of the trophic hormones of the anterior lobe of the pituitary gland.

It is the purpose of this paper to present the cases of 3 patients with hypopituitarism due to postpartum necrosis of the anterior lobe of the pituitary gland, and to point out the means by which this syndrome can be diagnosed and treated.

REPORT OF CASES

Case 1. Mrs. W W. K., a 24-year-old white woman, was admitted to the University of Virginia Hospital in a semicomatose state of about 2 days' duration. She had been in good health until the birth of her 4th child 1 year previously. The 3 earlier pregnancies were uncomplicated, and she had been able to nurse all of her children. The 4th delivery was at home and was complicated by severe hemorrhage, prolonged shock, and endometritis due to retained placenta tissue. On the 5th postpartum day she was transferred to a local hospital, where treatment with blood transfusions, penicillin, and sulfadiazine was started. After 5 weeks her temperature returned to normal. On the 40th hospital day a cervical dilation and uterine curettage was done and the retained placenta removed. During the period of hospitalization she developed thrombophlebitis of the left femoral vein.

At no time during the puerperium did the patient notice any breast engorgement or lactation. Following discharge from the hospital she failed to regain her strength. Her menstrual periods did not recur. She became intolerant to even minor degrees of cold. Her skin became dry and pale. Axillary and pubic hair gradually decreased. Cephalic hair became sparse and dry. She slept 12 to 14 hours out of each 24, and was still too tired to do her housework. Because of anorexia she ate little and consequently lost 50 pounds in weight. She complained of constipation, nocturia, polyuria, absent libido, and decreased resistance to respiratory infections. Her physician found her to have hypotension and anemia. She was treated with iron, liver, high protein diet, and desiccated thyroid tablets with little improvement. The day before admission she developed fever, drowsiness, coma, and convulsions. Following the administration of an intravenous infusion of 5 per cent glucose in saline her condition improved to the point that she could be transported to this hospital.

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[*] These patients were seen while the author was Resident in Medicine at the University of Virginia Hospital, Charlottesville, Va.

Physical examination on admission revealed a pale, stuporous, chronically ill young woman who appeared to be older than her stated age of 24 (figure 1). The rectal temperature was 99°F. The pulse and respiratory rates were 100 and 20, respectively. The blood pressure was 88/68 mm. Hg. The height was 63 inches and the weight 108 pounds. The face was expressionless and pale. Voluntary muscular movements were sluggish. The speech was slow and slurred. The skin was atrophic, dry, and cool. The breasts were atrophic, but there was increased pigmentation of the areolae. Axillary hair was absent, and only a few strands of pubic hair were present. A few moist bronchial rales were present in both lung bases. The heart sounds were distant, and the pulse was weak. There was marked atrophy of the external genitalia, vagina and uterus. The uterine cavity was sounded to a depth of 5 cm. Neither the ovaries nor any masses in the adnexal regions could be palpated.

The most important laboratory data are included in table 1. Other tests were as follows: A catheterized specimen of urine was normal except for a trace of acetone, an occasional finely granular cast, and about 100 pus cells per high power field. Urine cultures were positive for *Escherichia coli*. The differential blood smear showed band cells 2 per cent, polymorphonuclear cells 37 per cent, large lymphocytes 3 per cent, small lymphocytes 53 per cent, large mononuclear cells 2 per cent, and eosinophils 3 per cent. Routine spinal fluid examination and culture was normal except for a spinal fluid sugar of 32 mg. per 100 c.c. Blood cultures and agglutinations were negative. Tuberculin tests and acid-fast stain of gastric washings were negative.

X-ray examination of the chest on the day after admission showed lobular pneumonia in the left lower lobe. In spite of treatment with penicillin, 50,000 units every 3 hours, and sulfadiazine, 1 Gm. every 4 hours, this spread to involve almost the entire lung. Following the institution of streptomycin, 0.5 Gm. every 6 hours, the temperature returned to normal and the pneumonia resolved. She was given a high caloric diet supplemented with intermediate feedings and vitamins, intravenous infusions of 5 per cent glucose in saline, and blood transfusions. Aqueous adrenal cortical extract (Upjohn), 5 c.c. intramuscularly twice each day, and desoxycorticosterone acetate in oil (Upjohn), 3 c.c. intramuscularly daily, were also given. Following recovery from the acute febrile illness she returned to her pre-admission state. She remained intolerant to cold and required more cover than the other patients Her mental actions and physical movements remained sluggish.

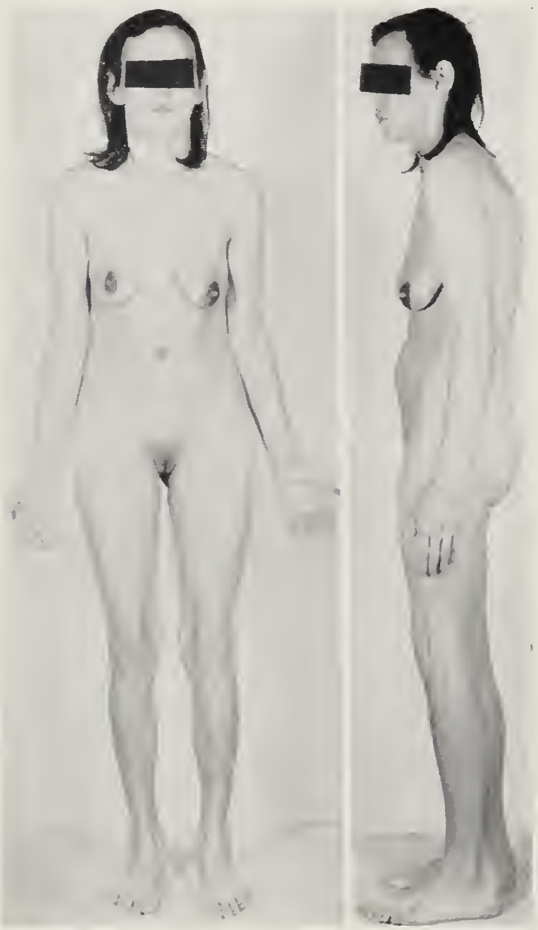

FIG. 1. Case 1. A 24-year-old woman with hypopituitarism following postpartum hemorrhage 1 year before.

The following diagnostic studies were done: The basal metabolic rate on 3 occasions was found to be minus 22 per cent, minus 28 per cent, and minus 33 per cent, respectively. Because she was convalescing from pneumonia at this time, the lowest result is probably the most correct. A glucose tolerance test[9] was done with the oral administration 100 Gm. of glucose. The blood sugars in mg. per 100 c.c. were reported as follows: fasting, 44; 1 hr., 93; 2 hrs., 125; 3 hrs., 130; 4 hrs., 80; 5 hrs., 76. The Robinson-Power-Kepler water diuresis test[10] for adrenal cortical hypofunction was done on 2

TABLE 1

Important Laboratory Data in Patients with Pituitary Necrosis

	CASE NO. 1			CASE NO. 2		CASE NO. 3		
	1st Adm.	2nd Adm.	3rd Adm.	1st Adm.	2nd Adm.	1st Adm.	2nd Adm.	3rd Adm.
Blood Chemistry[1]								
Fasting Blood Sugar	35, 42, 80	53, 75	73		68, 70, 80	33, 46, 74	36, 58, 65	30, 45, 69
Blood Urea	40, 16	32	18	136, 90, 30	100, 26, 37	76, 45, 55	62, 52, 49	66, 22
Plasma Chlorides	585, 645	605	605		575, 605	520, 610	625	650
Carbon Dioxide[2]	38, 49	50	62		52.5	46	48	37, 50
Serum Protein	5.4	6.3		4.6, 5.8, 6.5	6.7	5.8		5.3
Albumin/Globulin Ratio	1.1					1.8		
Serum Cholesterol	163				256, 265	127, 131	145	80
Serum Calcium	9.4				11	8.6	9.0, 9.1	9.2
Serum Phosphorus	3.2				4.7	3.5	2.8, 3.3	2.2
Serum Phosphatase[3]	6.1				4.2		3.3, 2.1	2.7
Icterus Index	4					3		
Hematology								
Red Blood Cells[4]	4.1, 3.9	4.0	3.6	4.0, 3.0, 4.3	5.0, 4.8	3.3, 4.2	4.1, 3.0	4.0, 3.7
White Blood Cells[5]	2.4, 6.2	4.4, 5.6	5.4	8.0, 10.3	8.4	4.4, 7.4	3.6, 6.0	6.2, 7.6
Hemoglobin[6]	13, 11, 12	11.5	10	12, 8, 10	14, 13.5	10, 11	11, 8.5, 9.5	13.5, 12
Special Tests								
Basal Metabolic Rate	−22, −33, −28				−31, −33, −33	−28, −34, −42	−30, −39, −40	
Glucose Tolerance Test[7]	46, 93, 125, 130, 80, 76				83, 120, 79, 74, 44, 109			
Insulin Tolerance Test[8]					62, 36, 38, 56, 54			
Kepler Test[9]	10, 4				4.4			
17-Ketosteroids[10]	1.25				5.81			
Blood Type	0			0	0			0
Rh Test	Positive			Positive				Positive
Wassermann and Kahn Tests	Negative		Negative	Negative	Negative	Negative		Negative
Physical Data								
Age	24	24	25	29	30	45	45	53
Weight	110	120	130		112	106	96	98
Blood Pressure[11]	90/60	90/60	90/60		95/65	90/60	90/60	90/60

[1] Milligrams per 100 c.c., unless otherwise specified

[2] Carbon dioxide combining power in volumes per cent

[3] Bodansky units

[4] Millions per cu. mm.

[5] Thousands per cu. mm.

[6] Gm. per 100 c.c.

[7] Blood sugar before and at hourly intervals after oral administration of 100 Gm. of glucose

[8] Blood sugar before and every 30 minutes after 1.7 units of insulin intravenously

[9] Value of A is normally greater than 25

[10] Milligrams per 24-hour volume of urine

[11] Approximate average of numerous determinations by different observers

occasions. The value of A on the first test was 10 and on the second, 4. In both tests the volume of the night urine specimen was at least 6 times the volume of the maximum hourly day urine specimen. The 17-ketosteroid excretion[11] in 24 hours was found to be 1.25 mg. (This test was performed by Dr. Lawson Wilkins of the Harriet Lane Home in Baltimore, Maryland.)

On discharge, she was instructed to eat 6 small meals each day supplemented with 6 Gm. of salt each day. She did well on this régime and gained 7 pounds in weight the first 2 months after discharge. There was no improvement in the symptoms of hypothyroidism or hypogonadism.

The final diagnosis was hypopituitarism secondary to postpartum necrosis of the anterior lobe of the pituitary gland complicated by bronchopneumonia.

About 3 months after discharge she again developed malaise and was brought to the hospital in a semicomatose state. Physical and laboratory examinations were essentially as before. The blood sugar on admission was 53 mg./100 c.c. She had gained 10 pounds in weight. Two days after admission she developed a swelling of both parotid glands. With her history of recent exposure to mumps, it was evident that her present "Addisonian crisis" had been precipitated by epidemic parotitis. During the period of hospitalization she was treated with desoxycorticosterone acetate, aqueous adrenal cortical extract, and intravenous infusions of glucose and saline. She made an uneventful recovery, except that on one occasion she was found to have a blood amylase elevated to 116. (Normal in this hospital is less than 50.)

She did fairly well for several months. In September, 1949, approximately 1 year from the time of the first admission, she was readmitted because of impending crisis due to a 5-day upper respiratory infection.

The physical examination was essentially as before. The laboratory data are included in table 1. She recovered on the same program of treatment as used previously. At present it is planned to give her small doses of methyl testosterone in an effort to improve her muscle strength.

Case 2. Mrs. L. H. S., a 29-year-old white woman, was admitted to the University of Virginia Hospital because of weakness and fatigue since the birth of her sixth child 6 months previously. She had always enjoyed good health, and her first 5 pregnancies had been normal. In the sixth pregnancy labor was ushered in by premature rupture of the amniotic membranes at home. On admission to the hospital she was not in active labor. On the third hospital day she developed an amniotic sac infection, and her temperature rose to 105°F. The following day she delivered a stillborn female child that was 51 cm. long and weighed 3,100 Gm. The blood pressure remained approximately 120/80 mm. of Hg. The red blood cell count was 4,000,000 per cu. mm. The hemoglobin concentration was 12 Gm. per 100 c.c. on admission. These figures fell to 3,000,000 per cu. mm. and 8 Gm. per 100 c.c., respectively, postpartum. The white blood cell count was 9,000. Cultures of the cervical secretions were positive for *Bacillus aerogenes*. Repeated blood cultures were negative. The blood urea rose to 136 mg., but this later fell to 30 mg. per 100 c.c. In spite of treatment with penicillin, 100,000 units every 3 hours, and sulfadiazine, 1 Gm. every 4 hours, she continued to have a septic course until streptomycin, 0.4 Gm. every 3 hours, was started on the 17th postpartum day. She promptly became afebrile and remained so until all chemotherapy was stopped on the 23d postpartum day. Even though she had nursed all of her previous children there was no breast engorgement during this hospitalization.

She never regained her strength following discharge from the hospital. In addition, she complained of fatigue, lethargy, and intolerance to cold. Her skin became rough and dry. Pubic, axillary, and cephalic hair gradually started falling out. Uterine bleeding did not recur. She had a poor appetite and yet gained 7 pounds in weight. Low back pain and dull headache were occasionally noted.

She was readmitted to the hospital 6 months postpartum for diagnostic study. Physical examination at that time showed her to have a normal temperature and respiratory rate, but a blood pressure of 96/68 mm. Hg. The height was 64 inches and the weight 112 pounds. She appeared older than her stated age of 29 years. The facial expression was dull, and the movements were lethargic. The brownish pigmentation of pregnancy remained on her face. The hair on the head was dry, fine and sparse. Pubic hair was markedly reduced, and only a few strands of axillary hair were present. The breasts were atrophic, but the areolae were deeply pigmented. The skin was dry and thickened. The heart sounds were faint, and the pulse was weak with a rate of 64. There was moderate atrophy of the vulva and vagina. The cervix and the fundus of the uterus were about half normal size. The ovaries could not be palpated. The reflexes were hypoactive. The visual acuity and visual fields were normal.

The laboratory data not included in the table were as follows: Urinalysis was normal. The hematocrit was 40, and the color and volume indices were 0.89 and 1.01, respectively. A differential blood smear showed: juvenile cells, 1 per cent; band cells, 6 per cent; polymorphonuclear cells, 18 per cent; small lymphocytes, 70 per cent; large mononuclears, 2 per cent; transitional cells, 2 per cent; and basophils. 1 per cent. No eosinophils were noted. A gastric analysis showed the presence of free hydrochloric acid. Phenolsulfonphthalein excretion was 5 per cent in the first 15 minutes and 70 per cent in 2 hours. Roentgenograms of the chest and of the sella turcica were normal. An orthodiagram showed the measured frontal plane of the heart to be 12 per cent less than the predicted frontal plane. An electrocardiogram was within normal limits, but the complexes showed low voltage.

A basal metabolic rate was minus 33 per cent on 2 occasions and minus 31 per cent once. A glucose tolerance test[9] with the administration of 100 Gm. of glucose by mouth was as follows. fasting blood sugar, 83; 1 hr., 120; 2 hrs., 71; 3 hrs., 44; 4 hrs , 109 mg. per 100 c.c. An insulin tolerance test[9] with the intravenous administration of 1.7 units of regular insulin was as follows: fasting blood sugar, 82; 20 min., 21; 30 min., 36; 45 min., 38, 60 min., 38; 90 min , 56; 120 min., 59 mg. per 100 c.c. The Robinson-Power-Kepler water diuresis test[10] was positive, and the value of A was 4.45. The 17-ketosteroid excretion[11] in the urine in 24 hours was about 5.81 mg.

A diagnosis of hypopituitarism secondary to postpartum necrosis of the anterior lobe of the pituitary gland was made. The patient was treated with a regular diet supplemented by intermediate feedings, sodium chloride 1 Gm. 4 times each day, and desiccated thyroid, 16 mg. (Parke-Davis, strong) daily. She has not returned to the hospital for follow-up examination.

Case 3. Mrs. R. R., a 53-year-old white woman, was in good health until she had her 4th pregnancy at the age of 38 years. This pregnancy resulted in a stillbirth and was complicated by severe postpartum hemorrhage. She had a few irregular, scanty episodes of uterine bleeding following this, but menstrual periods ceased entirely at the age of 39. She never regained her strength following this pregnancy. Pubic and axillary hair gradually decreased. She developed anorexia, constipation, and fatigue. She was first admitted to this hospital in January, 1942 with a history of having had episodes of unconsciousness after missing meals during the previous week.

Physical examination at that time showed a pale, thin, middle-aged woman with an apathetic facial expression (figure 2). The temperature was 97.6°F. The pulse rate was 50 and the respiratory rate, 16. The blood pressure was 95/70 mm. Hg. The skin was dry, cool, and had a yellowish tint. The hair on the head was thin and dry. The axillary hair was absent and the pubic hair sparse. The teeth were in poor condition with marked pyorrhea. The heart sounds were slow and faint. The breasts were atrophic. All reflexes were hypoactive. There was atrophy of the vagina and uterus.

Laboratory data, not included in the table, were as follows: the urinalysis was normal except for 2 to 3 clumps of pus cells. The erythrocyte sedimentation rate was 33 mm. in 1 hour. The phenolsulfonphthalein excretion was 85 per cent in 2 hours, and the urea clearance was 9.6 per cent. The arm-to-tongue circulation time was 27 seconds. Bromsulfalein and hippuric acid liver function tests were normal. The prothrombin time was normal. The Exton-Rose glucose tolerance test showed a fasting blood sugar of 57; $\frac{1}{2}$ hour, 97; and 1 hour, 117 mg. per 100 c.c.

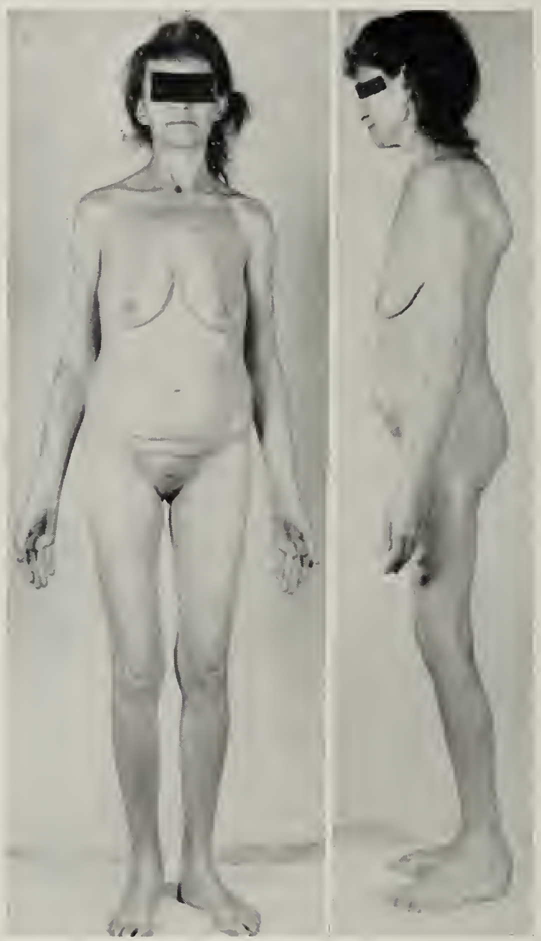

Fig. 2. Case 3. A 53-year-old woman with hypopituitarism following postpartum hemorrhage at the age of 38 years.

Roentgenographic examinations of the chest, skull, gallbladder, and upper gastrointestinal tract were normal. Barium enema examination showed chronic colitis. Roentgenograms of the teeth showed marked alveolar resorption. An electrocardiogram showed sinus bradycardia with low voltage, consistent with a diagnosis of hypothyroidism. An orthodiagram showed the heart to be of normal size.

While in the hospital the patient had several episodes of hypoglycemia which responded well to glucose infusions. On discharge she was told to take 3 grains of desiccated thyroid gland each day and to have her teeth extracted. She continued to have episodes of hypoglycemia and returned in June, 1942 for further treatment. The physical examination and laboratory studies at this time were essentially the same as before. The basal metabolic rate was again minus 40 per cent. She was given whole pituitary extract (Polyansyn, 1 c.c. intramuscularly) every day for 1 month without significant symptomatic effect. Following this she received several intravenous injections of 10 c.c. of aqueous adrenal cortical extract, and definite improvement was noted. On discharge she was told to take 2 Cortalex tablets 3 times a day and 3 grains of thyroid each day. She took this medication for several weeks but discontinued it when her prescriptions ran out. She got along fairly well during this time except for an occasional attack of hypoglycemia when she missed a meal. She had a very severe hypoglycemic attack about 3 days before the 3d admission, and because of this was sent back to the hospital.

The physical findings on admission, September 23, 1948, were essentially the same as they had been 6 years previously. The height was 62 inches and the weight was 95 pounds. The temperature was 98.6°F. The pulse rate was 76, and the respiratory rate, 18. The blood pressure was 100/60 mm. Hg. Urinalysis and blood counts were normal. The blood urea was 22 mg. per 100 c.c. on 1 occasion and 66 a few days later. Plasma chlorides were not determined until after she had received an intravenous infusion of isotonic saline solution. At that time they were 650 mg. per 100 c.c. Serum sodium determination was 330 mg. per cent, and the serum potassium was 18 mg. per cent. The other data are included in the table.

She was treated with a high caloric diet, divided into 6 feedings and supplemented by 2 Gm. of salt 3 times each day. Aqueous adrenal cortical extract, 5 c.c. intramuscularly twice each day, was given during part of her hospital stay. While she was receiving this medicine she felt very well and had no attacks of hypoglycemia. Previously, hypoglycemia had been quite a problem. On discharge she was told to eat a high caloric diet divided into 6 small meals and supplemented by 6 Gm. of sodium chloride each day.

The final diagnosis was hypopituitarism due to postpartum necrosis of the anterior lobe of the pituitary gland.

DISCUSSION

Pituitary insufficiency following a complicated delivery is not uncommon, and it is often unrecognized. Sheehan[3] estimates that 1 in every 5,000 parous women will have a severe enough form of the disease to be readily diagnosed. Lesser degrees of pituitary damage are found in about 0.1 per cent of parous women. In a series of 120 patients who had suffered some degree of hemorrhage and/or collapse at the time of delivery 41 have shown evidence of pituitary insufficiency later. In a series of 46 women who died in the puerperium 13 were found to have necrosis of the anterior lobe of the pituitary. Thirteen of 15 women who showed symptoms of pituitary insufficiency could definitely trace it back to a complicated delivery.[2] The mechanism of this necrosis is not well understood. Apparently the prolonged shock causes ischemia and thrombosis of the pituitary vessels.[1] Reekie[12] and Taylor and Shea[13] have reported autopsies of patients who died in the puerperium with evidence that the pituitary necrosis had occurred prior to the time of delivery and that this had been a factor in the postpartum collapse. This is contrary to the more widely accepted opinion of Sheehan who believes that the necrosis occurs in the puerperium.

There is marked variation in the severity of the disease. If less than 50 per cent of the anterior lobe is destroyed, there are no symptoms. Destruction of 50 per cent gives minimal symptoms, 75 per cent moderate symptoms, and 95 per cent severe symptoms of pituitary failure.[3] There is a close correlation between the amount of pituitary necrosis and the degree of postpartum collapse.[1] The prognosis in the milder cases is excellent, and the patients may live for 20 to 30 years with moderate symptoms of pituitary insufficiency. However, the patients with severe symptoms seldom live more than a few years.[3]

The chain of symptoms in a severe case is very characteristic. Following a complicated delivery with collapse the patient fails to lactate and breast engorgement does not occur. She never regains her previous strength and sense of well-being. Hypothyroidism is marked and is characterized by drowsiness, intolerance to cold, sluggish and slurred speech, pallor, constipation, fatigue, and dryness of the skin and hair. The body temperature and pulse rate are subnormal. The basal metabolic rate is usually lower than minus 30 per cent. Because of the hypovarianism there is marked atrophy of the genitalia and breasts. Amenorrhea is the rule, and libido is lost. The nervous symptoms characteristic of the menopause are seldom present. Symptoms of Addison's disease are due to the adrenal cortical failure. This causes weakness, asthenia, weight loss, gastrointestinal upsets, intolerance to infections or trauma, hypotension, weak arterial pulses, dehydration, and elevated blood urea. The almost complete loss of axillary hair[14] and the marked thinning of pubic hair are characteristic. The pigmentation of Addison's disease is rarely seen. The fasting blood sugar is usually below normal, and hypoglycemic symptoms appear if a meal is missed. Episodes of coma and convulsions due to the hypoglycemia are not uncommon. Probably because of delayed intestinal absorption the glucose tolerance curve is flat. The insulin tolerance test is very helpful in the diagnosis of the milder cases.[9] It must be used with extreme caution in the more severe cases. These patients show a normal fall in blood sugar following the intravenous administration of 1 to 5 units of regular insulin, but the return of the blood sugar to the normal fasting state is very slow. This delayed return has been termed "hypoglycemic unresponsiveness." Diuresis following the ingestion of a large amount of water does not occur in these patients. This is a simple and useful diagnostic test that can be carried out with a minimum amount of equipment.[10] The 17-ketosteroid excretion is usually less than 5 mg. per 24 hours and in the more severe cases may approach zero.[14] Eosinophilia which is not decreased by the administration of adrenalin is another helpful test. A normochromic anemia that responds very poorly to the usual methods of treatment is common. A relative lymphocytosis and a leukopenia are not uncommon. Splanchnomicria is found on autopsy in the more severe cases. The small size of the heart is indicated during life by the X-ray examination of the heart and also by the low voltage of the complexes in the electrocardiogram.

Cachexia is not a particularly common finding and appears only in the more severe cases. Many cases of hypopituitarism have been missed because the physicians assumed that cachexia was a necessary accompaniment of the disease.[1] Almost all of these patients have some degree of anorexia, but most of them eat enough to avoid cachexia.

From a theoretical standpoint the frequent injection of pituitary extract would seem to be the treatment of choice. However, the pituitary extracts which are available at the present time are too weak and too prone to cause allergic reactions to be of much use. Substitution for the hormones secreted by the thyroid, adrenal cortex and ovary is the next best method of treatment. However, this is a task of Herculean proportion.[15]

As has been shown by Lerman and Stebbins,[16] these patients are intolerant to large doses of thyroid hormone, and Addisonian crises can be precipitated by this drug. The marked subjective improvement which occurs when patients with primary hypothyroidism are treated with thyroid is not seen in this disease. Small doses of desiccated thyroid gland may be helpful in a very few patients.

The atrophy of the genital organs can be readily corrected by the administration of estrogens. If these estrogens are administered in a cyclic manner it is possible to produce uterine bleeding. The addition of progesterone makes it possible to produce secretory changes in the endometrium. It is doubtful if the results obtained by this method of therapy justify the expense and inconvenience entailed. The production of uterine bleeding is probably contraindicated in a patient who is prone to have anemia.

The most important gland from the standpoint of life is the adrenal cortex. Treatment of this is similar to the usual treatment of Addison's disease. The hypoglycemia may be relieved by frequent feedings of a high carbohydrate, high caloric diet. The high protein diet usually recommended for the treatment of spontaneous hypoglycemia is not effective when the adrenal steroids are absent. Supplementation of the diet with a large amount of salt is indicated. Large doses of aqueous adrenal cortical extract are lifesaving during times of crisis. However, this hormone cannot be used routinely because of the expense involved. Desoxycorticosterone acetate is effective in raising the blood pressure and may produce some symptomatic improvement. Cortisone will probably be the drug of choice when it becomes available.

Sheehan[1] has reported that subsequent pregnancies in a few patients with mild symptoms have resulted in improvement. It has been our experience that it is impossible for these women to again become pregnant.

SUMMARY

1. Three patients with varying degrees of hypopituitarism due to postpartum necrosis of the anterior lobe of the pituitary gland are reported.
2. Postpartum necrosis of the anterior lobe of the pituitary gland is a common sequela of deliveries complicated by severe hemorrhage and or collapse.
3. This results in a clinical picture that is produced by the combination of hypothyroidism, hypovarianism, and hypoadrenocorticism.
4. Cachexia has been greatly overstressed as a symptom. This occurs only in the more severe cases and is not necessary for a diagnosis of hypopituitarism.
5. Hypopituitarism should be considered in every woman with vague complaints who dates her illness back to the time of a complicated delivery.
6. The most important aspect of the treatment of these patients is to treat the adrenal cortical failure. Substitution therapy for the thyroid and ovarian hormones causes some symptomatic improvement.

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THE IMPORTANCE AND FUNCTION OF CHILD PSYCHIATRY

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THE proper education of the child, one may gather from a recent survey conducted among modern parents, seems to mean only that the child must be sent to school. In reality the home is the school of life; the mother's lap, the first kindergarten.

Every woman has an instinctual competency in caring for a child and fulfilling its developmental needs. Often, however, this instinct is today suppressed by immaturity, since many women are practically incapable of caring for children. Present-day economic conventions wherein both parents work have brought about the sad state of affairs in which the child is given into hired hands for safe-keeping in the so-called kindergarten, nursery schools, and other institutions, and then later is shuttled into the public schools, relieving the parents from, it is true, all worry, and also all responsibility for the child's training.

All the real problems of life today—jealousy, greed, strife, cruelty, and so forth—are traceable to this or that man or group of men, all of whom, let us remember, once passed through the formative and impressionable years of childhood.

Formal education in the classroom, no matter how extensive it may be, is never sufficient to actualize all the potencies which are inherent in man, and which must be realized in his everyday life. Education can never be considered complete unless it includes the emotional, physical, moral and religious elements, as well as the intellectual. These elements of a complete education are not all to be had in the classroom, unless of course one is naïve enough to consider the world a classroom environment.

Someone once said, "To be a parent, especially a mother, is a full-time job." This is as true today as ever, and is especially significant when we consider that the education of the child properly begins at birth. It is not only the duty and right of the parents to see to the child's education, but it is the right of the child to be educated by its own parents. It is true that education is a self-activated process; however, someone must be present to supervise or direct the education, especially that of the child. It is only too well known that where man is left to himself and is allowed to do as he pleases, when and where he pleases, he doubtless will very seldom succeed in adjusting himself properly to his environment. The parent must waste no time in carrying out his obligation of training the child for the future. The parents are the ones who are primarily interested in the rearing of their child. Society, although it has a claim to the education of its members in so far as this affects the commonweal, has the right to educate the child only by virtue of the fact that, conditions being what they are, parents are not themselves fully able to provide for the complete education of the child. The child is first of all a member of the family, and secondly a member of society. The erroneous doctrine of state absolutism, claiming the individual exists for the state and not vice versa, is here rejected in toto.

The well-educated child is one who has been successfully satisfied in the experiences of his daily life, emotionally, physically, morally and spiritually. Real education is more positive than negative, more active than passive. A child psychiatrist's concept of therapy may be phrased thus: Let us prevent maladjustment so that a minimum of correction is necessary. Certainly it is almost impossible to prevent every maladjustment, but with greater care parents can decrease the number and severity of maladjustments considerably. If, however, the parents fail to take the necessary precautions against the rise of maladjustments, they can hardly expect that lack of effort to bear good fruit. Experience has proved that problem children, juvenile delinquents, and neurotic adults trace their origin to problem parents. The different behavior problems of normally intelligent children (speech defects, reading deficiencies, blocking in arithmetical thinking) can be traced in most instances to miseducation or neglect during the preschool years of the child.

These many and varied behavioristic problems are aggravated by the emotional tension of American life. The child today lives in an atmosphere of hypertension, and consequently is subject to emotional traumata which he would never have experienced in former ages. This emotional strain is also intensified by the movies, soap operas, stage plays, comic books, newspapers, and so forth. Few today can stand the pace at which we live with its strain on the nervous system, and some break completely or at least temporarily with reality, while others become behavior problems at school and at home, many ending up as delinquents.

Psychologists and psychiatrists know that human beings in their physical and psychic development undergo the greatest emotional and physical strain during the period of childhood and early adolescence. The life of the child at any level is a work of continual adjustment, which should be surrounded by security. This is especially true as the child passes from childhood to puberty and from puberty to adolescence and from adolescence to adulthood. We point out in passing that at these transitional periods the need for understanding from elders is very essential to the child's proper balance in the sphere of sex.

The infant realizes that people around him can ease and reduce his tension. Anxiety is an expressive state which grows out of the conflict between instinctual need and lack of environmental fulfillment of those needs; for example, a mother who is unwilling or unable to gratify the infant's need can be the direct cause of anxiety arising in the infant. Instincts are released energy developed as a result of the life processes. The physiochemical processes of the body which release tension are present from the onset of the baby's first breath.

When the instinctual tension manifests itself to the child and when the mother meets the demand with indifference, refusal, annoyance, or punishment, the infant seeks to find some other release than through this environmental object. He may have to suffer, for example, discomfort by lying too long in the same position. The necessity of enduring this tension too long by himself creates eventual apathy or emotional coldness. This lack of mothering gives the child the impression that he is alone in the world and that he is likely to be forever neglected. This lack of emotional satisfaction is probably the cause of schizophrenia. We must remember that, as long as the child continues to live and develop, instincts continue to seek gratification.

To keep love and avoid punishment the human being erects in his mind certain defenses against the unpleasant experience of anxiety and its symptoms of worry, fretfulness, apprehension, and uneasiness. One of these common defenses against anxiety is a phobia. The more affection and understanding of his earlier instinctual needs the child meets, the easier are the socialization processes of the child. The child who feels emotionally insecure is potentially the victim of nervous mental disease in adult life.

Much of the struggle of adolescence results from the conflict between the developmental strivings to be free and independent and the regressive attempts for the dependence so long experienced in childhood. Some parents are anxious to push children prematurely into development and responsibility; the later adult continues his longing for dependence when as a child he missed it or had too much of it. In either way the self-reliance of the mature adult is impaired.

In our present changing world we are living in a new age which we may call the age of unrest or haste. Life is now more complex with its new advances in technical science. The new era has changed our time-honored institutions and our way of life. We now no longer look upon the home as the first school for children. The family bond is fast breaking, and the child is neglected by its independent and self-seeking parents. Following the example of parents, children soon learn to exert their so-called personal rights at an early age: for them rights are much more important than duties.

More and more the task of rearing children has become the burden of the teacher and the child psychiatrist. It is simply too burdensome for the parents. Children are sent to boarding school for the winter if enough financial security is present, or in the summer to camp. In regard to child training we must achieve a renewed realization on the part of the parents of the tremendous importance of themselves in the personality development of the child. Parenthood is not a simple profession. It is hard, but a beautiful vocation.

The process of growing-up is a complicated phenomenon. Too often development is regarded in terms of physical growth alone. A simple cold, a pain, or an ache arises, and the anxious parents consult the physician. Integral development, however, consists of mental and emotional growth as well as physical, and therefore the child psychiatrists stand side by side with the pediatrician. A blocking in emotional development is just as important etiologically in behavior disturbances as the blocking of the physical growth.

Let us not forget that many apparently physical disturbances are emotionally conditioned and therefore require more than specific physical therapy such as medication. For example, enuresis may be treated with apparent success by suggestive means or even by terroristic means which may or may not also entail medication. But if the basic cause of the enuresis is not removed, the cure is only on the symptomatic level, and the enuresis will convert itself into some other psychoneurotic symptom. The same can be said of other symptoms of emotional disturbances, such as speech defects, reading difficulties, etc.

Psychotherapy is needed for the restoration of proper emotional development and growth. The object of psychotherapy is to make it possible for the child to develop freely and properly. One of the primary objectives of psychotherapy is to reorientate the child to the views he should have toward the persons surrounding him and toward his environment in general. The most important tool for accomplishing this effectively is the relationship between the therapist and the child. The child transfers his anxiety tensions with the resultant behavior to the therapist, who, instead of suppressing the behavior phenomena of the child, with skillful guidance employs them in introducing to the child a new concept of his personality and of his relations with others. The acceptance of the new role must come from the child, however. It is only when this occurs that the insecurity and tension with the resulting abnormalities can be eliminated.

Though the child and the therapist start out alone in this evaluation of the child's role, they very soon have to depend on the coöperation of others, especially the parents who are the primary source of the trouble. Indeed, the role of the parent is most important in effective psychotherapy. This is evident from the fact that unless the parents are reorientated to the parental roles simultaneously with the child's reorientation, the therapy will have little if any lasting results. The parents and teacher will be able to help an emotionally unbalanced child only when they are aware of the basic problem. It is only then that they can supply help. Instead of suppressing the needs underlying the basic problems, they will provide for proper expression and

(*Continued on page 414*)

GALLINGER HOSPITAL CLINICAL CONFERENCES*

CONGESTIVE SPLENOMEGALY

MODERATORS:

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DR. HUSSEY: The topic for today's conference is congestive splenomegaly, a term which is in some ways a misnomer, since it has reference strictly to those conditions of the spleen that result from prolonged hypertension in the portal system, and such venous hypertension is not the only cause for congestion.

Without going into details about the pathology, I can say that portal hypertension is the cause for veno-capillary sclerosis.[1] The longer the hypertension and the higher the venous pressure, the more extensive this change in the spleen. There results a conversion of the spleen's circulation from an open to a closed form, with consequent reduction in the capacity of the organ as a reservoir. One of the main factors in pathogenesis is the duration of the portal hypertension. This is to imply that the longer the pressure in the portal vein has been elevated, the greater the change in the spleen. The next most important factor is the height of the portal venous pressure, which in some ways is a reflection of the degree of portal vein obstruction. Also on purely physical grounds, the closer to the splenic pedicle the obstruction to the portal system takes place, the higher the venous pressure and the greater the pathologic alteration in the spleen. However, the factors of duration and degree of portal obstruction often outweigh the influence of location. One other fact of some importance in connection with site will be brought out in discussion of congestive heart failure as a cause for this syndrome. Minor factors that affect the pathology include heart failure, in which there is a considerable degree of engorgement; exsanguination, which leads to collapse of the spleen; and, of course, associated infection, which will cause some variation in its cellular content.

Figure 1 is a diagram of the constituent veins of the portal system. The main points are that the portal vein is formed by union of the splenic and superior mesenteric veins. The major tributary of the splenic vein is the inferior mesenteric. The short gastric veins, which are a relatively unimportant part of the venous drainage of the stomach, invariably empty into the splenic vein. In this figure the coronary vein, which is a major vein in draining blood from the stomach, is shown as uniting with the splenic vein. As a matter of fact, in the majority of cases, the coronary vein enters the portal system at the point of junction of the splenic and superior mesenteric veins. In about 25 per cent of cases the coronary vein empties directly into the portal at some point above this junction, and in about 16 per cent of cases it empties into the splenic vein as shown.[2]

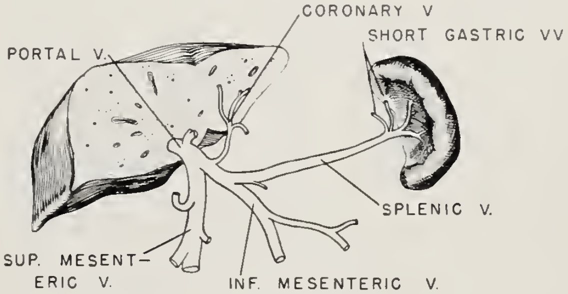

FIG. 1. Tributaries of the portal vein.

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* Clinical Medical-Surgical Conferences are conducted weekly at Gallinger Municipal Hospital by the Georgetown University Medical and Surgical Services.

Figure 2 depicts the various clinical syndromes that have been described in connection with congestive splenomegaly. Theoretically, the condition can follow obstruction to portal flow at any point from the heart on down through the portal system to the splenic vein. Numeral one, therefore, is intended to indicate that heart failure may produce congestion of the spleen of the type that we are talking about. Very few cases of congestive splenomegaly have been described in cardiac patients. The main reason seems to be that most patients have heart failure for relatively short periods of time, so there is not time for development of congestive splenomegaly.[1] Another fact in connection with the clinical manifestations is that the patient who has congestive splenomegaly as a result of heart failure will not show the development of a collateral circulation in the same way as the patient who has obstruction to the portal system itself. The reason for this is obvious. With heart failure, the venous pressure is elevated generally and there is no differential of pressure between portal system and caval system such as results when the portal system alone is obstructed.

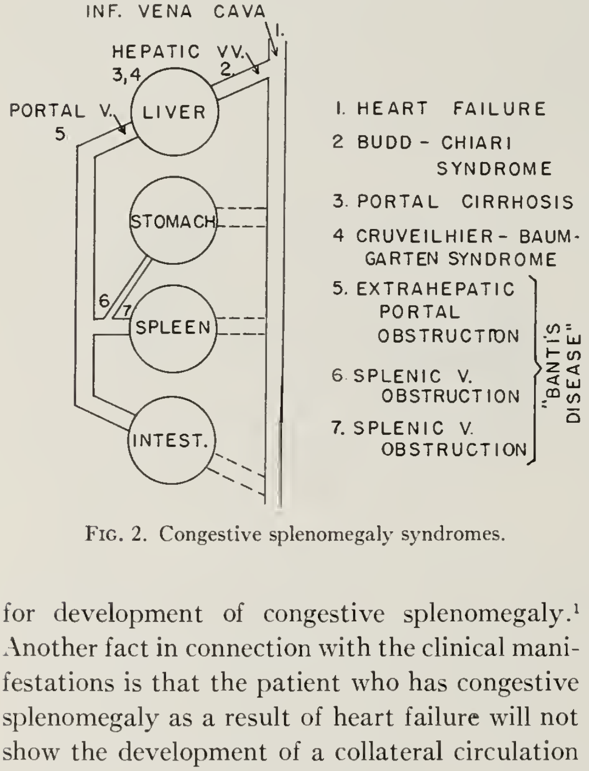

FIG. 2. Congestive splenomegaly syndromes.

The Budd-Chiari syndrome refers to obstruction of the hepatic veins. This may result from occlusion by malignant neoplasm or at times from intrinsic hepatic phlebitis.

Two syndromes are shown in connection with the liver. By far the more important is portal cirrhosis in which the portal circulation is obstructed by fibrous tissue. The Cruveilhier-Baumgarten syndrome is given only for purposes of being complete. This term describes cases in which there remains a patent umbilical vein which becomes an important collateral pathway when there is acquired portal vein obstruction.[3] Under such circumstances, the network of veins around the umbilicus is unusually prominent and there is a venous hum in the epigastrium or at the umbilicus. This is not to be confused with Cruveilhier-Baumgarten disease, a very, very rare condition in which there is congenital hypoplasia of the portal venous system together with survival of the umbilical vein, resulting in atrophy of the liver and evidences of portal hypertension.

Extrahepatic portal obstruction may result from a variety of causes. Thrombosis, either primary or from invasion by malignant tumor or because of infection, is probably the most common cause. At times adhesions will occlude the portal vein before it enters the liver. A cavernous type of alteration in the portal vein has been described, but it is now believed that this is nothing more than recanalization of a portal vein that has previously been thrombosed.[1]

Obstruction of the splenic vein is shown at two sites with reference to the point of entrance of the coronary vein. In those cases in which the coronary vein does empty into the splenic vein, it is obvious that complete occlusion of the splenic vein interferes with the return of blood from the stomach.[4] Under these circumstances occlusion of the splenic vein alone provokes the development of a collateral circulation involving the stomach and therefore the esophagus. This leads to the point that esophageal varices would then be a part of the clinical manifestations of the disease. On the other hand, if the coronary vein empties directly into the portal vein or into the point of confluence of the splenic vein and superior mesenteric vein, occlusion of the splenic vein alone does not interfere with the return of blood from the stomach except through those vessels which are of minor importance, namely, the short gastric veins. These last three types of obstruction, extrahepatic portal vein obstruction and splenic vein obstruction at whatever site and of whatever variety, include most of the cases of so-called Banti's disease that are described in the older literature.

The principal clinical effects of portal hypertension are splenomegaly, esophageal and gastric varices, ascites, and acquired hypersplenism. Splenomegaly in itself can be a disadvantage because of the discomfort incident to enlargement of the spleen. In some cases of congestive splenomegaly, the enlargement is great enough to account for such discomfort. Of much greater importance are the last three effects enumerated. The development of esophageal and gastric varices provides potential danger of hemorrhage. You will recall in connection with cardiac failure as a cause for congestive splenomegaly that such esophageal and gastric varices are not to be expected. Ascites is the third factor. It is more common to discover ascites when an additional cause is operating as, for example, in cases of cirrhosis of the liver, in which, in addition to portal vein obstruction, there is a change in the quantity of serum albumin or some other alteration of the equilibrium that controls exchange of fluids. Acquired hypersplenism is a term that should be familiar by virtue of the fact that we have previously had a conference on this topic. It implies that, as a result of enlargement of the spleen, influences are brought to bear on the bone marrow so that there will be a diminution in red cells or white cells or thrombocytes or combinations of these three types of cellular elements. The resulting anemia, leukopenia, thrombocytopenia, or pancytopenia may be the predominant feature of congestive splenomegaly. I think that with this introduction we will have the presentation of the cases.

CASE PRESENTATIONS

DR. RUBITSKY*: The first patient is a 22-year-old colored woman who was admitted in July, 1949 with miliary tuberculosis and lymphocytic meningitis. After receiving treatment with streptomycin and para-amino-salicylic acid for 6 months she improved dramatically.

It was noted shortly after admission that the patient had a large liver and a spleen which was very firm and occupied approximately one third of the abdomen. While in the hospital she has had 9 episodes of massive upper gastrointestinal hemorrhage, vomiting as much as 800 c.c. of blood within a 15-to 24-hour period. Her white blood cell count has ranged between 1,700 and 6,000, for the most part being below 4,000. Epinephrine was given at a time when the count was approximately 2,000, and it did not increase appreciably. Anemia has varied from moderately severe to very severe depending on the influence of hemorrhage. Platelet counts were normal.

At present the liver is palpable about 1½ fingerbreadths below the right costal margin. It is firm and smooth. The spleen has not diminished in size. The patient has never been jaundiced and has not had ascites. There has been no evidence of bleeding other than from the upper gastrointestinal tract. There is no evidence of impaired clotting qualities of the blood. There is some impairment of liver function (cephalin flocculation, 4 plus; thymol turbidity, 9.2 units; total protein, 5.2 grams with 1:1 A/G ratio; B.S.P. test, 5 per cent retention). The icterus index and prothrombin values are normal. A bone marrow examination was not remarkable except for some reduction of the white cell elements. A barium swallow revealed the presence of esophageal varices.

The condition of the patient's tuberculosis is satisfactory at present. The last episode of hematemesis occurred about 4 weeks ago.

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Dr. Kellow*: The second patient is a 38-year-old colored woman who was admitted on January 24, 1950 with massive hematemesis. In 1937 she had an episode of jaundice lasting 3 months which followed some sort of intramuscular injection. She had been hospitalized 3 weeks previously, following 3 episodes of severe hematemesis, but signed out after 48 hours. She has been a chronic alcoholic for 10 years.

The hematemesis has recurred once while she has been in the hospital. Examination has revealed a palpable spleen. Urinalyses have been negative. The hematocrit on admission was 17, and following many transfusions it has gradually risen to 35. The blood urea nitrogen has never been elevated. The serum cholesterol is 156 mg. per cent. The total protein, albumin, globulin, and prothrombin values were normal. A "bleeding work-up" was normal. The stools are now guaiac-negative. The bromsulfalein retention is 9 per cent at 45 minutes; the thymol turbidity is 6.6 units; the cephalin flocculation test is 4 plus.

The patient has done well since being in the hospital this time. About 1 week after admission gastrointestinal X-ray examinations were found to be entirely normal except for evidences of esophageal varices.

Dr. Storey†: The last patient is a 49-year-old colored man who was admitted on November 28, 1949. He had been perfectly well until 3 weeks prior to admission when he suddenly vomited a pint of blood. About 4 days later there was a second episode of hematemesis. Following this he developed gradual, progressive swelling of the abdomen, and about 4 days prior to admission to the hospital he had a third episode of hematemesis. During the week prior to admission his legs began to swell. There was no previous history of any gastrointestinal disturbance or of alcoholism.

On examination at the time of admission the blood pressure was 180/95 and has ranged up to 200/120. There was grade 2 hypertensive retinopathy. The heart was slightly enlarged, and there was a very soft apical systolic murmur. The lungs were clear. The abdomen was greatly distended by fluid. There were no organs palpable. There was 3 plus pitting edema of the lower extremities. The remainder of the examination was negative. Laboratory work at the time of admission revealed a hemogoblin of 5 grams, hematocrit of 16, and a leukocyte count of 4,000. Urinalyses throughout the hospital stay have been normal. Total protein on admission was 6.2 grams with an albumin value of 3.44. On a second occasion the total protein was 6.2 grams and the albumin 3.77. The prothrombin time on admission was 85 per cent. The bleeding time, clotting time, platelet count, and capillary fragility test were all normal. Liver function studies done on the day after admission showed a bromsulfalein retention of 6 per cent at 45 minutes, thymol turbidity of 2.4 units, and a cephalin flocculation of 2 plus. These studies were repeated with no remarkable difference. Gastric analysis yielded 70 units of total hydrochloric acid and 60 units of free hydrochloric acid. The day following admission a paracentesis of the abdomen was done, and 1,000 c.c. of clear amber fluid was removed with a specific gravity of 1.009 and containing 34 lymphocytes and 50 mg. of sugar per 100 c.c. Following paracentesis the left lobe of the liver became palpable. He has had no recurrence of hematemesis. The guaiac tests on the stools were negative. Repeated studies of the gastrointestinal tract were negative. The entire course in the hospital has been asymptomatic. Re-accumulation of fluid was not a problem. A liver biopsy done during the second month of hospitalization was reported as showing normal liver.

During the second week of January an exploratory laparotomy disclosed a liver which was thought to represent a hobnail type of cirrhosis, with greatly engorged veins of the portal system. The venous pressure measured in a vein of the falciform ligament and one of the omental veins was over 300 mm. of water. The spleen was said to be slightly enlarged. Following operation he had an uneventful course and was continued on the usual regimen for portal cirrhosis, and he has done well. He has not had any recurrence of bleeding. He has shown very little tendency to re-accumulate fluid, and when he does accumulate some fluid it disappears after he is given salyrgan and ammonium chloride. Since his return to the medical ward, barium studies of the esophagus have been repeated and esophageal varices have been demonstrated. Liver function has been reëvaluated and studies are still normal. At operation a specimen of liver was obtained, and the microscopic report was normal liver.

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Dr. Hussey: These 3 patients offer different problems, all to some extent related to the subject that we are discussing. The first patient, like many cases of this kind that we encounter, has portal vein obstruction of uncertain cause. I think that the men on the Tuberculosis Service will agree that we don't know definitely that her portal venous hypertension is due to liver disease alone. It is possible that other factors are operating to obstruct the portal vein or the splenic vein itself. In any event, the evidence for portal hypertension is obvious from the development of esophageal varices which have bled repeatedly. Splenomegaly in this case is not necessarily indicative of portal venous hypertension alone. It is possible that tuberculosis of the spleen has played a part. In addition to the esophageal varices this patient has some evidence, not conclusive, of hypersplenism, in that her anemia has been out of proportion to the bleeding that she has done and she has had a rather low white blood cell count most of the time. Of course, the anemia might be out of proportion to the bleeding because of the infection which she has been carrying. However, with improvement of this infection, we would have expected that the anemia would also have improved, and it is my understanding that this has not happened at the expected rate.

The second case is an example of portal vein hypertension with evidence of esophageal varices in a patient who has cirrhosis of the liver. The etiology of her cirrhosis is clouded a bit. Although she is an alcoholic, there is a past history of an episode of jaundice that may have been homologous serum hepatitis. In this case the complicating feature as regards the esophageal varices is the impairment of liver function as demonstrated by the various tests that have been enumerated.

The third case is one in which we are uncertain about the cause for the portal hypertension, because, although the liver grossly seemed to be cirrhotic to the surgeons who conducted an abdominal exploration, the pathologic reports deny this fact. We have to assume, therefore, that there may be some other factor, perhaps intrinsic disease of the portal vein, responsible for this man's trouble. In addition, he has the problem of ascites.

The medical management of patients with esophageal varices is rather simple. In the first place, all our efforts medically do no good in some cases. The mortality with the first episode of hemorrhage is quite high. In patients in whom the hemorrhage from esophageal varices is a result of cirrhosis of the liver the mortality rate is 40 per cent or more. When the esophageal varices are due to other causes than cirrhosis, the outlook is somewhat better and a mortality rate with the first hemorrhage of around 25 per cent is usually given. The immediate treatment for a patient who is bleeding severely is the transfusion of blood, the use of the other measures for control of shock, and at times the insertion into the esophagus and cardiac end of the stomach of some kind of balloon that can be inflated to control the hemorrhage by compression of the region in which the varicosities are usually found. Aside from this, little can be done, and it is a matter of good luck more than anything else when the bleeding stops and the patient therefore survives. One other fact in connection with this bleeding is important. In the patients with cirrhosis that we have seen, the fatal hemorrhages have almost always been in those patients who have a combination of esophageal varices with a considerably lowered prothrombin value or a significant thrombocytopenia. If the patient has only esophageal varices, his chances for surviving the initial episode of hemorrhage appear to be much better. The medical treatment for evidences of hypersplenism, when that exists, is quite imperfect, consisting in blood transfusions and little else. Of course, the care of the liver disease itself is of importance, but I don't believe that we need to go into that topic at length for this present audience. The treatment of ascites when it attends portal vein hypertension consists in the use of a low sodium regimen, the administration of various substances which are intended to promote diuresis, of which the most valuable are the mercurial diuretics. When these measures are ineffective, paracentesis has to be employed, and this is rather unfortunate because in some cases it leads to a further depletion of the total protein stores of the body.

I believe these are the main points then in the medical treatment. As you can see, none of them is very definitive. Certainly the management of a single episode of bleeding from esophageal varices holds little promise for the patient's future.

Dr. Kiernan: In an effort to salvage individuals who have massive hemorrhage from esophageal and gastric varices, various surgical procedures have been carried out with varying success. Among the more important ones is a procedure advocated by Phemister,[5] a resection of the lower end of the esophagus and cardiac portion of the stomach, those portions which contain the varices. This procedure has met with little success, and I believe is now abandoned. Wangensteen[6] has been of the impression that the bleeding from esophageal varices is prompted by ulceration of the varices by regurgitation of the acid gastric juice. He advises subtotal or total gastric resection for the reduction of gastric acidity, thereby lessening the erosion of the existing varices. Clagett[7] was impressed with the possibility of interrupting the veins at the lower end of the esophagus when doing a splenectomy through a transthoracic approach, but this procedure has met with little or no success. Garlock[8] has had experience with attempts to establish a rich collateral circulation in the region of the esophagus in order to take the load off the esophageal varices. This procedure is carried out through a cervical mediastinal approach. Mobilization of the esophagus is done and packs are inserted to stimulate collateral circulation. I know of no follow-up on patients for whom he has carried out this procedure. If such an operation is proved to have merit, it probably will command a great deal of attention, because it is less formidable than some of the other procedures.

Whipple[9] was stimulated by his keen observations of an individual who had previously been operated upon by Ergman for a pancreatic cyst, at which time no evidence of portal hypertension was noted. Subsequent to this, evidence of portal hypertension developed, and Dr. Whipple operated on the patient and found evidence of constriction of the splenic vein by scar with resultant splenomegaly and esophageal varices. Blakemore and Lord[10] decided to attack this problem of bleeding esophageal varices in individuals with portal hypertension by portacaval anastomosis. Such operations have been carried out successfully before, having been suggested by Eck,[11] who in 1877 created a portacaval fistula in a dog. The intention, as you know, is to relieve the portal hypertension by dumping the pressure into the caval system. The first patients were operated upon by ligation of the portal vein and direct anastomosis with a tube to the inferior vena cava. The problem grew and was taken up by others, and now a number of procedures are being carried out, including splenorenal anastomosis, at first with the removal of the kidney and now without removal; direct portacaval anastomosis without division of the portal vein; use of the superior mesenteric vein, ovarian vein, spermatic vein, etc. All have as their aim an anastomosis between the portal and vena caval systems.

Patients with portal hypertension must be classified as having intra-or extrahepatic obstruction of the portal system, and in order to be successful, of course, the anastomosis must be at a point distal to the obstruction. In the great majority of cases there is intrahepatic obstruction. An important factor in determining the operability of a candidate for such procedure is fairly satisfactory liver function. Attention is directed, particularly by Blakemore, to the fact that estimation of the serum albumin is of great importance. He prefers that the patient have an albumin value above 3 Gm. per cent.

The problem of acute massive hematemesis probably will remain the most difficult one. Operations as described have little place in the treatment of active bleeding. However, during an interval between episodes of massive bleeding from esophageal varices something should be done. In instances of splenomegaly with evidence of esophageal varices with either intra- or extrahepatic obstruction, a splenorenal shunt with removal of the spleen is probably an easier procedure than some, simply because of the anatomy of the region. Recently, the use of a thoracoabdominal approach has facilitated exposure and probably will aid greatly in carrying out such anastomosis. There are cases, of course, in which thrombosis of the splenic vein is distal to the entrance of the coronary vein, and splenectomy solves the problem. On the other hand, in individuals who have obstruction of the portal or splenic vein with esophageal varices, removal of the spleen not only does not provide relief but makes the problem from there on more difficult.

Another method of dealing with esophageal varices is the injection of sclerosing material into the varices. Moersch[12] has reported fairly good results with such injections and points out that those patients who have bleeding subsequent to injection prove to have varices in the cardiac end of the stomach which are not approachable for injection.

The operative procedure is dependent, as was said previously, upon the location of the portal vein obstruction. As far as I know, there is n⁰ sure way of determining the point of obstruction before operation, although patients who have a history of intra-abdominal infection or trauma more frequently are found to have extrahepatic obstruction. In all cases it is of great importance to measure the venous pressure in the portal venous system before carrying out any shunt type of procedure. Following the completion of such an operation, reëvaluation of the venous pressure proves the adequacy of the operation. I recently had my first patient with portal hypertension who was subjected to a shunt type of operation; he was a young man who had had pylephlebitis with multiple liver abscesses following the removal of a gangrenous appendix. He had developed esophageal varices complicated by repeated massive, upper gastrointestinal bleeding. He was thought rather properly to have thrombosis of his portal vein. Pressure in an omental vein was $3\frac{1}{2}$ times normal. Splenectomy and splenorenal anastomosis were carried out, and venous pressures were found to have been lowered to normal. The operation has been done too recently to evaluate properly its success, but thus far the patient has done well.

There are cases in which it is too risky to do such a formidable operation as those described. As pointed out by Linton,[13] a 2-stage procedure may be used with some hope of success. Blain[14] has recommended splenic artery ligation without portacaval anastomosis as the treatment in such cases, but in Linton's opinion this is probably not adequate. He, therefore, uses Blain's operation as a preliminary to portacaval shunt in these risky cases.

The success of operations for portal hypertension with bleeding esophageal varices will be better judged in a few years, but thus far those who have had most experience are of the opinion that salvage results.

DR. HUSSEY: In the first case, Dr. Kiernan, the woman with tuberculosis, if we had to contend only with the problem of hypersplenism, the whole situation would be simpler, would it not?

DR. KIERNAN: Yes, sir. I'm not so sure that this individual has hypersplenism to the degree that would seem to be apparent at first glance. She certainly has some leukopenia. However, whether or not she has anemia resulting from hyperactivity of the spleen, I don't know. Anyway, hypersplenism could be partly controlled in this patient by ligation of the splenic artery, if her general condition is not thought to be good enough to stand a portacaval anastomosis.

DR. HUSSEY: Do these procedures have any value for relieving the ascites which is often a feature of these cases?

DR. KIERNAN: Speaking from the experience of others, I would say, no, they have little place in the treatment of ascites.

DR. HUSSEY: Now, as regards the recommendations that might be made for these patients. In the woman with tuberculosis, it would seem to me that at the present time an attempt at splenorenal shunt would be inadvisable, mainly because of the evidences of impaired liver function. Whether or not her tuberculosis is a contraindication, I would not like to try to decide. I think Dr. Katz would be the best one to decide about that. It would be possible, however, to do some kind of palliative procedure. We do not have facilities here for injecting the esophageal varices, although this would be one kind of palliative procedure to offer this patient. The other kind, as Dr. Kiernan has already mentioned, would be ligation of the splenic artery. This has the effect of reducing the portal hypertension for the time being, mainly because it removes about 40 per cent of the arterial flow that eventually reaches the portal system. In addition, ligation of the splenic artery is a much better procedure than the older one of splenectomy that was done with the same thought in mind. Splenectomy has obvious disadvantages. First, the removal of the spleen entails removal of a large part of the collateral circulation, and, second, when the spleen has been removed, the possibility of doing some kind of portacaval anastomosis later is reduced, simply because the splenic vein would no longer be available.

In the second case, the woman who has evidence of impaired liver function plus esophageal varices, it has been a matter of waiting for liver function to improve to a point where portacaval anastomosis might be tried. Probably that point has now been reached.

The third patient, in spite of the fact that he has ascites, seems to me to deserve an attempt at some kind of anastomosis now. I say this for two reasons. First, as far as we can tell, his liver function is adequate. Second, although there is a curious conflict of reports, I prefer to believe the microscopic appraisal that the liver is normal. Taking everything into consideration, I think he is ready for a splenorenal shunt. What do you think about it?

DR. KIERNAN: Does he have splenomegaly?

DR. HUSSEY: He has slight splenomegaly or moderate. Which was it?

DR. STOREY: Moderate, as judged by operation and X-ray films.

DR. HUSSEY: He does have moderate splenomegaly. That brings to mind a point, by the way, that might well have been discussed in greater detail. Splenomegaly will vary according to the location of the cause for portal hypertension, the degree of such hypertension, and the presence of complicating disease of the spleen. At times infarction of the spleen will account for a considerable reduction of its size. Do you have any thought about whether or not this man is a candidate now for portacaval shunt?

DR. KIERNAN: Yes, I have seen him before and am of the opinion that he is a candidate. Where his obstruction is, is an enigma. I think that the girl with tuberculosis is a candidate, as you pointed out, for a stage procedure at least. I think that the other patient as of now is not a candidate for surgery.

Dr. Hussey: Let us have some consideration of the problem of the tuberculosis in the girl who is in danger of dying from hemorrhage although she seems to be recovering from miliary tuberculosis.

Dr. Katz: If it were established that the patient with tuberculosis and portal hypertension had tuberculous meningitis, the prognosis for recovery would be so poor that the simplest and most conservative method of dealing with her esophageal varices should be adopted. However, there is a good deal against the diagnosis of true tuberculous meningitis and in favor of the impression of tuberculous serous meningitis. This latter entity cannot be differentiated from the former on clinical grounds alone. However, examination of the spinal fluid establishes the diagnosis. In either disease the cells and spinal fluid pressure may be increased, but the protein, sugar, and chloride content remain normal in tuberculous serous meningitis. The spinal fluid in our patient resembles that found in tuberculous serous meningitis. The course of tuberculous serous meningitis is more benign, and recovery is much more frequent than in true tuberculous meningitis.

As for the cause of the portal hypertension, there is no great evidence that it is intrahepatic. The only abnormal liver function tests recorded were the cephalin flocculation and thymol turbidity. These tests, as is well known, do not necessarily determine anatomic liver disease but rather reflect abnormalities both qualitative and quantitative in serum proteins which may be related to functional impairment of the liver. Hepatic dysfunction is frequently found in tuberculous patients especially in association with amyloidosis and in the sicker ones with fever and nutritional inadequacies. In these patients fatty infiltration is a frequent finding. Bromsulfalein retention is the most important abnormality. In our patient this test was normal. The evidence, therefore, of anatomic liver disease sufficient to cause liver dysfunction is not complete. It should be recognized, of course, that hematogenous tuberculosis involves the liver very frequently, practically always, as a matter of fact. The involvement is a mid-zonal tubercle formation often with necrosis. This type of liver involvement usually does not cause derangement of liver function tests. A liver biopsy has been scheduled which should be helpful in establishing this point.

As Dr. Hussey stated, the splenomegaly may be due to causes other than portal hypertension, such as tuberculosis for example. Also, tuberculosis of the spleen may be a cause for splenic vein thrombosis. The massive size of the spleen is not necessarily an argument against tuberculous involvement.

I would favor a splenorenal shunt in this patient rather than ligation of the splenic artery. I recognize that this latter procedure does lower portal hypertension somewhat. However, it is not definitive treatment and should be followed by splenorenal shunt. The patient is in good condition at present. To wait for 2 years to elapse before definitive surgery because of its prognostic implication in acute hematogenous tuberculosis would not be desirable. There is no unanimity as regards the use of splenorenal shunts in patients with impaired liver function, because some now do this procedure even in the face of mild liver insufficiency if the indications are strong enough. Furthermore, there is no overwhelming evidence of liver impairment in our patient. Also, if the spleen is tuberculous, its removal would be desirable.

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THE ROLE OF THE GENERAL PRACTITIONER IN CANCER CONTROL*

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Washington

THE responsibility of the general practitioner of medicine in the diagnosis and treatment of cancer is one of the utmost importance.

Until such time as future investigation may reveal the mechanism of cancerous growth and efficient prophylaxis established, or until such time as a specific cure is discovered, recognition of precancerous states or very early recognition of actual cancer followed by surgery or radiation therapy is our sole line of defense. In this line of defense the general practitioner occupies the outposts and the very front trenches.

In the very well organized public campaigns being waged for cancer control, there is an appalling apathy on the part of the profession. With the average physician it is not so much lack of knowledge as failure to use his five God-given senses that permits a vast number of cases of cancer to go unrecognized until too late to save life.

These statements are all bromides and platitudes, but because of their great importance are worthy of being repeated again and again.

Another bromide, "Cancer does not arrive full-blown," certainly merits repetition. The alert physician recognizes the importance of predisposing and etiologic factors which can be ascertained by careful history-taking. These include family predisposition and chemical, thermal and bacterial factors. In suspected carcinoma of the lungs, air pollution is a factor not to be overlooked.

The public campaigns are making more and more people cancer-conscious and are bringing them to the general practitioner for advice. Many are reluctant to submit to thorough examination. One of our most important functions as general practitioners is to overcome such reluctance. There is no substitute for complete, painstaking examination. A large part of such examination can be made in the average office.

X-ray examinations, including routine gastric surveys, laboratory investigations, Papanicolaou technic for vaginal and bronchial smears, aspiration of liver and breast substance for biopsy are best referred to the specialist. After all available facts are assembled the general practitioner is the one best qualified to evaluate their importance.

There are two other functions uniquely in the realm of the general practitioner: One is our duty to impress on the patient that a single negative examination, no matter how complete, does not guarantee immunity for the remainder of the patient's life. Particularly if the symptoms persist, he must stress the need for repeated investigations. The other is to prevent cancerophobia. Because of extensive cancer campaigns the public has become "cancer conscious," and many persons are needless victims of cancerophobia. Such patients should have painstaking investigation of the symptoms which have occasioned their fears. Only by evincing real interest in their problems and by thorough examination can we convince these patients that their fears are groundless. Moreover, careful examination may occasionally avert the embarassment caused by having another more sympathetic doctor discover some real cause for the patient's fear.

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While the public is being educated to seek advice from physicians, it is of equal importance that physicians themselves keep abreast of the times. Most medical schools have excellent refresher courses which are available to any physician. The utilization of such courses by the general practitioner is one of the chief aims of the newly formed American Academy of General Practice. This organization is destined to become the most powerful factor in the preservation of the sacred patient-doctor relationship or, in other words, American Medicine.

It is the importance of the early diagnosis of pelvic and rectal cancer that I wish chiefly to call to your attention. It is in these two fields that we commit our gravest sins of omission.

In a recently published series of too long-delayed diagnosis of pelvic cancer, in 310 patients who sought medical advice within 1 month of the appearance of symptoms, there was no examination made in 156. In an unbelievably large number of these cases, oral or hypodermic administration of "hormones" was initiated. In a series of 1,140 cases studied by the Philadelphia Committee for the Study of Pelvic Cancer, there was physician delay in 27.7 per cent.

The very pertinent and cogent comment on their findings by the Committee was: "The failure to make a pelvic examination in the presence of pelvic complaints cannot be passed off lightly, and from the physicians' standpoint, cannot be logically explained."

Postmenopausal bleeding is recognized by physician and layman alike as a danger signal requiring investigation. However, adenocarcinoma of the uterine fundus may be present before the menopause or without causing irregular menstrual bleeding. All women at or near the menopause with a history of increased menstrual flow should have thorough pelvic examination and vaginal and cervical cytologic smears.

A few years ago the physician depended entirely on signs and symptoms to make the diagnosis of pelvic cancer. Then palpation became our chief source of information. Later with electrically illuminated instruments direct visualization became possible with curettage and the biopsy punch. With the introduction of vaginal and cervical cytologic smears, not only can the malignant character of visual or palpable neoplasms be demonstrated, but the normal appearing cervix may be proved to harbor a malignant lesion too early to be identified by palpation or the biopsy knife. The principle underlying the diagnosis of cancer by vaginal smear is that all epithelium arising from müllerian ducts tends to desquamate. Malignant growths arising from these tissues therefore usually exfoliate to a greater degree than normal epithelium, and morphologically characteristic cells with the frequently hyperchromatic nuclei crowding out most of the cytoplasm and occupying most of the cell can be found.

The examination of such smears is not an office procedure, since they require a well-trained technician to stain them and an experienced microscopist to interpret them. The taking and fixing of the smears, however, is a very simple procedure, and should be routine in the pelvic examination of all female patients.

Another symptom requiring careful investigation at any age is postcoital bleeding.

And now to the other field where our sins of omission are greater if possible than our failure to make pelvic examinations. Someone once said, "A specialist is a doctor who makes a rectal examination." Is there any reason why we should not all qualify as specialists in the recognition of rectal cancer?

In history-taking it is important to review the bowel habits of the patient for a period of 2 years preceding the examination. Trivial alterations in bowel habits are significant and warrant investigation. There may be history of occasional loose stools, or a tendency to constipation, or irregularity in the time of bowel movement. Mild generalized abdominal tenderness usually ascribed to gas distention, annoying cramping sensations not accounted for by dietary indiscretions, hemorrhoids not too troublesome, or occasional small amounts of blood in the stool may be some of the phenomena elicited by questioning. Weight loss, anorexia, cachexia, and weakness are never present in the early stages of intestinal cancer. Let me stress again the importance of change of bowel habits, which occurs usually many months before the appearance of blood in the stools.

X-ray examinations in suspected cases of early cancer of the colon are notoriously disappointing. Forty per cent of cancer of the colon can be detected by digital examination, with the patient straining down, and from 75 to 80 per cent can be diagnosed by use of the sigmoidoscope. Every general practitioner should be able to pass a 5-inch proctoscope. A tilt-table facilitates the examination, but it is not absolutely necessary. The early malignant lesion is usually a single punched-out ulcer with nodular and indurated edges, and with the contiguous mucosa absolutely normal.

After positive diagnosis of cancer of the colon, particularly in the distal portion, it is the duty of the general practitioner to advise radical surgery. We advise it in other parts of the body, whynot in the rectuim? Explain to the patient the anatomy and physiology of the colon. The burden of caring for a permanent colostomy is a small price to pay for protection against the tragic conditions resulting from makeshift surgical procedures to save the sphincters.

In examination of the rectum do not dismiss the presence of polyps as of no importance. There is increasing evidence that polyps undergo malignant degeneration, and they should be removed before such change has occurred.

The general practitioner's role in cancer of the breast can be summed up in a few words. A painless lump in the mammary gland, adherent to the skin and fascia, not freely movable, and producing a slight dimpling of the skin, should be regarded with extreme suspicion. I have heard Dr. Bloodgood say that the physician has never lived who can say that any lump in the breast is not malignant, and that each and every one should be examined by biopsy.

The prevailing attitude of the general practitioner is to advise his patient with adenomatous goiter without hyperthyroidism, "Do not bother it until it bothers you." If we may believe the statistics regarding incidence of cancer of the thyroid, such advice may prove ill-advised. The incidence of malignant disease in adenomatous goiter has been variously estimated by a number of writers as from 5 to 16 per cent. Recent investigation seems to favor the accuracy of the larger percentage.

Benign growths in the thyroid of children are exceptional and when present, removal should always be strongly urged. Approximately 20 per cent of nodular enlargements of the thyroid in children prove to be cancerous. When we consider the relative freedom from risk in the removal of adenomatous goiter as compared with the potential danger of neglecting it, it would appear that the evidence is strongly in favor of surgery.

Before closing I wish to bring to your attention one other cancer problem which the general practitioner is frequently called to face, the pigmented mole. Whether the ordinary pigmented nevus is present at birth or begins later in life, it tends, when once developed, to remain stationary, without change of size or amount of pigmentation. When changes do occur, we must suspect degeneration to melano-epithelioma or melanocarcinoma. There is not time to go into the differentiation of various types of nevi. Suffice it to say that if a mole begins to grow rapidly with or without increase of pigmentation, or if it becomes deep blue without increase in size, it should be removed radically by surgery. The nevus cell is not radio-sensitive, and X-ray or radium should not be used. The practice of removing pigmented nevi by electrolysis and carbon dioxide snow cannot be too strongly condemned. Nevus cells are not all destroyed, and the resulting scar tissue acts as a source of irritation with resultant transition to melano-epithelioma. One should not excise a portion of a pigmented mole for biopsy but remove it in toto

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RECENT ADVANCES IN CANCER

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CANCER OF THE PROSTATE

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From 15 to 20 per cent of men over 45 years of age have cancer of the prostate gland. Currently not more than ½ per cent are cured by total prostatectomy for early carcinoma; approximately 12 per cent survive 5 years as a result of estrogen or castration therapy. At present not more than 5 per cent of patients referred for treatment are operable from the standpoint of cure. As a result of the order of the Surgeon General of the United States Army requiring a careful digital rectal examination of the prostate during the annual physical examination of all officers over 45 years of age, during 1948–49 over 50 per cent of patients with prostatic cancer admitted to Walter Reed General Hospital were suitable for radical prostatectomy according to Kimbrough.[1]

Because of the tendency of carcinoma of the prostate to invade the perineural lymphatics many pathologists and surgeons have come to the conclusion that early lesions cannot be cured. It is our experience that the majority of early adenocarcinomas have not invaded the lymph channels. Young,[2] in a series of 59 cases treated by radical perineal prostatectomy for both early and late lesions, had a 5-year survival rate of 53 per cent. If the operation is limited to clinically early cancer, Young felt that the 5-year survival rate would be 70 per cent. Jewett,[3] however, noted that only 51.3 per cent of the 78 patients with clinically operable carcinoma from the Brady Urological Institute series survived the 5-year period or died of other causes after 5 years without evidence of recurrence or metastasis. Twenty-three died of cancer, 30 died without cancer, 1 was living with cancer, and 24 were living without cancer. In my own small series the 10 patients operated upon for early cancer prior to 1945 are alive and clinically free of disease; only 1 of the 11 with extensive lesions has survived, but he has evidence of extension behind the bladder.

Because of the diligence of certain physicians in making the early diagnosis of prostatic cancer, I have been able to perform the radical operation upon from 4 to 6 patients per year. If an annual physical examination, including a careful digital rectal examination, were performed on all men over 45 years of age and all suspicious lesions were studied by an expert or subjected to biopsy, the cure rate could be extended to over 50 per cent, and there is a possibility of further incidence of cure as the over-all death rate for patients in this age group continues to be lowered.

Over 95 per cent of early malignant changes occur in the tissues of the posterior lamella of the prostate. This lamella consists of glandular structures which drain through ducts from the anterior commissure, the lateral and posterior commissures, to empty into the prostatic urethra distal to the veru. This lamella has been called the posterior lobe, but it is anatomically not a lobe. A few early or occult cancers arise from tissues of the false capsule of the prostate between the hypertrophied lobe and the lamella or the septums between lobules of hyperplasia. I do not believe that cancer develops in the lobules of hyperplastic tissue. Since the lamella or true prostate gland lies immediately beneath the prostatic capsule and is almost entirely palpable by digital rectal touch, early cancer should be detected easily.

All indurated lesions on the posterior or posterolateral surfaces of the gland should be suspected as being cancer. The differential diagnosis of prostatic carcinoma, calculi, infarcts, chronic nonspecific inflammatory lesions and tuberculosis is difficult. All of these lesions produce more or less induration. The position of the lesion, its induration, fixation, shape and invasiveness are factors in the differential diagnosis.

The earliest malignant lesions tend to occur in the posterior or posterolateral lamella in the apical half of the prostate. When the lesion is at the apex, shortening of the membranous urethra is almost pathognomonic of cancer. The induration of cancer is of stony consistency. Irregularity and asymmetry of the lesion with elevation of the lateral edge is typical. Early lesions tend to be unilateral. There is fixation and usually extension into the prostatic capsule. Early lesions at the apex tend to extend along the membranous urethra. Extension into the seminal vesicles or into the rectal membranes suggests that the lesion is inoperable.

Prostatic calculi are found in the prostatic ducts near the urethra where they are not palpable by rectum or in the tissues of the false capsule between the lobes of hyperplasia and the posterior lamella. The calculi themselves are not readily felt by rectal touch, but crepitus caused by the rubbing together of adjacent stones is typical. Prostatic calculi can be excluded in the differential diagnosis by X-ray examination of the prostate. By directing the rays from above the symphysis pubis through the prostatic area with the pelvis tilted, the patient's thighs being hyperextended, the calculi will be focused above the symphysis pubis. Phleboliths on the surface of the prostate in the rectal plexus of veins are readily palpable, freely movable and can be seen on X-ray films.

Infarcts of the prostate are not uncommon. These avascular indurated lesions are actually depressions when felt through the prostatic capsule. They tend to be rounded and smooth, and do not produce the irregular "raised edge" indurations of cancer. Many errors have been made in the diagnosis because of infarction, and even microscopic pictures resembling cancer have been noted.

Chronic prostatitis may be unilateral, but the process usually involves the base of the prostate and the lateral borders bilaterally. The induration of this fibrous tissue is considerable. There may or may not be fixation, but the irregularity and typical induration of prostatic cancer is lacking.

Tuberculosis usually involves the seminal vesicles as well as the prostate. Nevertheless, I have seen specimens of 2 prostates removed for cancer which proved to be tuberculous. The lesions were unilateral and involved the entire left half of the prostate, and there was no extension to the seminal vesicles nor involvement of the vasa or epididymides. Both of these patients had their tuberculous process arrested by radical perineal prostatectomy.

Prostatic inflammatory conditions, calculi and cancer, can be concomitant. Whereas prostatic hyperplasia does not, as a rule, involve the posterior lamella, small round indurated nodules of adenoma do occur around the ejaculatory ducts. On 3 occasions I have obtained a biopsy specimen through the perineal approach and found benign adenomatous lesions rather than cancer.

Early cancer of the prostate should be diagnosed by rectal touch alone. The differential diagnosis as noted above on a purely clinical basis can be applied by one familiar with the various lesions and the desirability for biopsy determined. The use of the Papanicolaou staining technic for examination of prostatic secretion for malignant cells is advised. The results are quite regularly positive in advanced cancer, but they have been consistently negative in my experience with early operable lesions. Whereas the serum acid phosphatase may be elevated in amount in a case of extensive carcinoma of the prostate, this value is consistently normal with early lesions. The serum alkaline phosphatase is elevated only in the presence of metastasis.

Biopsy of the prostate is indicated when there is any doubt in the mind of the expert as to the possibility of cancer. For the larger lesions a biopsy specimen can be readily obtained by the Silverman biopsy needle passed through the perineum and directed to the lesion by a finger in rectum. For the small lesions this method is not satisfactory. A positive biopsy, of course, would be important, but a negative report would be inconclusive. Therefore, I prefer to expose the posterior surface of the prostate by the perineal route and to remove the entire suspected lesion for biopsy and frozen section study. The accuracy of frozen section study of prostatic tissue depends upon the experience of the pathologist or surgeon. There is a 10 per cent chance of error. When in doubt one should advise total prostatectomy, that is, removal of the entire prostate with its capsule without resection of the seminal vesicles. This operation allows for a good anastomosis between the undisturbed neck of the bladder and the triangular ligament with an excellent chance for perfect urinary control.

When the diagnosis of carcinoma of the prostate is made early, radical perineal prostatectomy should be performed. For a reasonable chance of cure the lesion must be localized to the prostatic capsule. The prostatic capsule itself may be invaded, but if the rectum, seminal vesicles and surrounding tissues are not invaded, there is a reasonable chance of cure. When the seminal vesicles themselves are invaded, great palliative effect is obtained by radical surgery; obstruction is relieved, and there is little likelihood of recurrent obstruction. I know of 1 patient who survived 15 years after radical surgery when there was local recurrence behind the bladder. Recently the retropubic approach has been used for removal of the entire prostate, seminal vesicles, and neck of the bladder. There is no reason why this method of total prostatectomy should not succeed as well as the perineal route for early cancer, but the perineal route has the advantage of exposure of the posterior surface of the prostate for biopsy purposes when the diagnosis is in doubt. Neither the retropubic nor perineal routes allow for removal of the lymph nodes, and therefore the operation is not strictly "radical."

The operative risk is not great. In Young's early series the mortality rate was 11 per cent. In the last 100 cases performed at the Brady Urological Institute the mortality rate was only 3 per cent. My own mortality rate in 30 cases is 3.3 per cent. My first patient with extensive carcinoma died of embolism on the fourth postoperative day. Therefore the risk of total prostatectomy is no greater than for the simple removal of prostatic adenoma. There is very little morbidity. These patients have very little pain, and the convalescence is infinitely smoother than after enucleation of the adenomatous hyperplasia. Urinary control has been the deciding factor against radical perineal prostatectomy with many surgeons. In my experience removal of the entire prostate and seminal vesicles with a narrow cuff of bladder neck followed by anastomosis of the neck of the bladder to the triangular ligament for early carcinoma leaves the patient with good urinary control, but if the lesion is late and a large portion of the trigone has to be removed, incontinence results. I would hesitate to perform total prostatectomy and seminal vesiculectomy for benign lesions in order to prevent occurrence of cancer in the remaining posterior lamella or true prostate but would consider seriously total prostatectomy without seminal vesiculectomy for benign prostatism when there is a history of cancer in the family or any suspicion of cancer in the remaining prostatic tissue after enucleation of the adenoma.

SUMMARY

Early cancer of the prostate can be cured in the majority of instances by radical perineal prostatectomy. Because of the low incidence of early diagnosis, total prostatectomy cannot be performed in more than 5 per cent of patients having carcinoma of the prostate. Annual physical examination, including a careful rectal examination by the physician, of patients approaching 45 years of age could result in early diagnosis, and by radical perineal prostatectomy the majority of these patients could be saved. Treatment of cancer of the prostate by estrogen therapy and/or castration results in extension of life and relief of symptoms, but cure of this disease will continue to depend upon early surgery until some means of prevention of prostatic carcinoma can be developed.

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President's Page

COMMITTEE APPOINTMENTS

Your response to my letter asking for volunteers to serve on committees for the coming year was gratifying indeed. More than 270 signified their willingness to serve and most of them stated their preference as to committee appointments. So far as possible all have been placed on one of the committees of their choice. However, it was unavoidable that a few committees became overstaffed and this meant there were a very few who could not be placed as desired.

The success of the Society is measured largely by the work of its various committees. This year I feel we are fortunate in retaining many of the same chairmen and many of the same personnel, who will continue to put out the high calibre work they have done in the past. The new chairmen and the new members of the various committees are all hand-selected, and we likewise anticipate effective work from them. All committee chairmen and committee members were sent letters this month, notifying them of their appointments. If any error occurred, please bring it to the Secretary's attention or notify me personally.

More than 160 members responded to the questionnaire sent to the general membership asking for suggestions on limiting the number of scientific meetings, in order to avoid duplication of effort and an overburdened calendar, as well as recommendations for the Society's Program Committee. All of the ideas and suggestions had merit and will provide meat for continued study and future action. At this time I wish to thank everyone who took the time to reply, and to let you know that the suggestions made are being incorporated in our planning for the coming year.

As this is written the milk strike is still recent history. All of us should take pride in the manner in which representatives of our Society acted during this crisis to protect the best interests of the community, especially as they related to the ill and infirm.

In the midst of hot weather and vacation time, the work of the Society slows down, but beginning next month it will rapidly crescendo to its accustomed high pitch as all of the committees develop their projects.

Wm. M. Ballinger

Editorials

WILLIAM McCORMICK BALLINGER, M.D., F.A.C.P.

Although Dr. William M. Ballinger, 84th President of the Medical Society of the District of Columbia, who took office on July 1, 1950, was born in the Midwest, he has lived most of his life in Washington. He is, therefore, well known to most of his colleagues in the District of Columbia, who hold him in high regard not only as a physician but as a friend. Dr. Ballinger sincerely likes people, and even those who meet him for the first time instinctively sense it. Close friends always find him sympathetic and understanding.

Born in Keokuk, Iowa, on December 10, 1899, Dr. Ballinger obtained his early education in Denver, Colorado and in Washington, D. C., where his family moved in 1915. He received his A.B. degree from George Washington University in 1921 and his degree in medicine in 1924. After his internship at Garfield Memorial Hospital, Washington, D. C. from 1924 to 1925, he became an associate of the late Dr. William Gerry Morgan. His practice was then and still is limited to internal medicine, with emphasis on gastroenterology. Dr. Ballinger's association with Dr. Morgan continued until the latter's death in 1949.

Dr. Ballinger has served on the faculties of both George Washington and Georgetown medical schools. From 1925 to 1928 he was Assistant in Physical Diagnosis at George Washington University School of Medicine. In 1930 he was appointed Associate Professor of Gastroenterology at Georgetown University School of Medicine.

Dr. Ballinger is a member of the attending medical staff at Doctors Hospital and Consultant in Gastroenterology at Gallinger Municipal Hospital. He holds courtesy privileges in most of the other hospitals.

In the course of his professional career he has contributed to a number of scientific publications, including the *Annals of Internal Medicine*, the *Southern Medical Journal* and the *Medical Annals of the District of Columbia*.

Few physicians in the District have given more unselfishly of their time to medical organizations. Dr. Ballinger has been a chairman or a member of numerous Medical Society committees during the past 20 years. In 1944 he was elected First Vice President of the Society. Upon the departure of Dr. James N. Greear, then President, for military service, he became Acting President for the remainder of Dr. Greear's term and a member of the Executive Board. He was elected a regular member of the Board in 1945 and continued in that position as President-elect (1949).

Among the medical organizations of which he is a member are the Southern Medical Association, the American College of Physicians, George Washington University Medical Society (of which he was President in 1942–43), and the American Medical Association. He is also a Diplomate of the American Board of Internal Medicine.

Dr. Ballinger married Alice Lydia Shepard of Washington, D. C. in 1926. The Ballingers have two daughters, Frances Jane Ballinger, who is employed by the Rockefeller Institute for Medical Research, and Lydia Ballinger, who is a junior at Wellesley College.

Long a member of the Columbia Country Club, he finds relaxation and enjoyment in golf.

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia

WILLIAM McCORMICK BALLINGER, M.D, F.A.C.P.

President, The Medical Society of the District of Columbia, 1950–1951

* * *Medicine at mid-century* * *

MAKE YOUR PLANS NOW TO ATTEND THE

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THE MEDICAL SOCIETY

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DISTRICT OF COLUMBIA

*

HOTEL STATLER
Washington, D. C.
OCTOBER 2, 3, 4, 1950

*

The Medical Event of the Year in the Nation's Capital

During his college days he was one of the ranking tennis players of Washington and very active in musical circles. He is still an enthusiastic music lover although he has little opportunity to perform as he once did. He is also mechanically inclined and likes to tinker with automobiles or anything else that runs. But above all, he likes people and finds them a continuing source of interest and inspiration.

With Dr. Ballinger at the helm in the coming year, the Society will hold a steady course. Good will and common sense will prevail under the guidance of its new President.

PRIVILEGED COMMUNICATIONS

Numerous inquiries have been received by the Society and its Counsel pertaining to privileged or confidential communications made by a patient to a physician or surgeon. It is thought that a short article dealing with this subject might be of interest to members of the medical profession practicing in the District of Columbia.

Privileged and confidential communications have been the subject of discussion in many cases and by many text authorities. However, it must be borne in mind by physicians and surgeons that privileged communications are controlled by the laws of the jurisdiction in which they are practicing. For this reason it is dangerous to rely upon general discussions of this subject which are not confined to the jurisdiction in which the physician is practicing.

The Courts of the District of Columbia over the years have upheld the confidential character of private communications between a physician or surgeon and his patient. The basic reason underlying this privilege is that a physician or surgeon cannot treat his patient adequately without a full disclosure of the facts relating to the patient's complaints. In dealing with any information, confidential in its nature, which a physician or surgeon acquires in attending to a patient in a professional capacity, the physician or surgeon should take great care to see that it is kept confidential. The basic rule to be remembered is that such information should *not* be revealed without the consent of the patient.

In the District of Columbia the publication of confidential information acquired by a physician or surgeon from a patient is controlled by statute. The District of Columbia Code, 1940 Ed., Title 14, Sec. 308, provides as follows:

> "In the courts of the District of Columbia no physician or surgeon shall be permitted, without the consent of the person afflicted, or of his legal representative, to disclose any information, confidential in its nature, which he shall have acquired in attending a patient in a professional capacity and which was necessary to enable him to act in that capacity, whether such information shall have been obtained from the patient or from his family or from the person or persons in charge of him: Provided, That this section shall not apply to evidence in criminal cases where the accused is charged with causing the death of, or inflicting injuries upon a human being, and the disclosure shall be required in the interests of public justice."

A study of this enactment discloses that it forbids a physician or surgeon, without the consent of the patient or his legal representative, from disclosing any confidential information which he receives from the patient, from the patient's family or from persons in charge of the patient. That is plain. It is the proviso which ends Section 308, where consent is not invoked, which has given the greatest difficulty in the field of confidential communications in the District of Columbia. The proviso is designed to permit privileged evidence to be received in certain criminal cases in the interests of public justice. The physician, however, must bear in mind that this provision does not apply to *all* criminal cases. By its language it is limited to those criminal cases where the accused is charged with causing the death of a human being or of inflicting in-

NEW AUXILIARY PRESIDENT

MRS. WILLIAM M. BALLINGER
President, Woman's Auxiliary to the Medical Society of the District of Columbia

juries upon a human being. The physician must also remember that, even in such cases, disclosure of confidential communications can only be made when that is required in the interests of public justice.

Fortunately, the Court of Appeals for the District of Columbia has had occasion to construe Section 308 of the Code on several occasions. In the case of Hutchins v. Hutchins, 48 App. D. C. 495, our Court of Appeals held, pp. 500-501:

> ". . . it is for the Court and not the witness to determine whether or not facts . . . are within or without the limits of the statute. . . ."

This means that a physician should not undertake to determine for himself whether information which he has received in a confidential relationship with his patient can or cannot be disclosed. As the Court held in the Hutchins case, that is a matter for the Court itself to determine.

As a practical matter, this means that where demands are made upon a physician or surgeon, even if made by representatives of the United States Attorney, by Police Officers or by other law enforcement officers, he cannot reveal information of a confidential nature, even if a criminal case is pending, until a court decides that such information shall be made public in the interests of public justice. Accordingly, when physicians have approached the writer of this article and have asked whether or not they can reveal information of a confidential nature, obtained from their patients or members of the family or from those in charge of the patient, they have been consistently advised that they may not reveal such confidential information without the express consent of the patient or the legal representative of the patient or until a court of competent jurisdiction rules that such disclosure is required in the interests of public justice.

Recently, the matter came up in connection with certain grand jury proceedings being conducted by the United States Attorney. The attention of the United States Attorney was directed to the provisions of this section of the Code, the decision in the Hutchins case, and he was advised that the physician involved could not testify before the grand jury concerning any confidential information received by him from the patient without the express consent of the patient, or until ordered to do so by the District Court on the ground that such disclosure was required in the interests of public justice. The United States Attorney did not require the physician to testify until such consent of the patient had been obtained.

In some jurisdictions it has been held, when a patient institutes litigation involving the patient's physical condition, that the bringing of the action is a waiver of the confidential privilege existing between a physician and such a person. While there are decisions in other jurisdictions to this effect, our Court of Appeals has held that such litigation is not a waiver of the privilege protected by Section 308, and unless the patient permits a physician to testify as to the patient's physical condition, the physician may not reveal confidential information pertaining to this condition which he obtained in his professional capacity (Mays v. New Amsterdam Casualty Company, 40 App. D. C. 249). In the Mays case, our Court of Appeals held (page 258) that a physician who makes an examination of a patient at a different time from that testified to, because of the provisions of Section 308 of the Code, may not give evidence as to what he discovered in his examination.

The Court pointed out that Section 308 prohibits disclosure by a physician without the consent of the person afflicted or his legal representative of any information of a confidential nature and that nothing is more confidential than the examination of a patient by a physician. To permit any other interpretation of the statute, the Court said, is to emasculate it.

In any case where the physician or surgeon is in doubt as to whether privileged information can be made public, he should obtain competent legal advice before acting.

Warren E. Magee
General Counsel for the Medical
Society of the District of Columbia

PYELONEPHRITIS

A recent review[1] of the medical aspects of pyelonephritis emphasizes that what we used to call "pyelitis" is truly a disease of the interstitial tissue of the kidney, not a simple inflammation of the urinary conduit. The acute form is one of the most common renal lesions. It may be the result of hematogenous infection or of ascension of bacteria from the lower part of the urinary tract, various circumstances determining the mode of infection.

Recurrent pyelonephritis may represent repeated acute infections or exacerbations of a disease which has healed incompletely. In the latter type, termination in chronic pyelonephritis is to be expected. The chronic form is characterized by progressive obliteration of nephrons adjacent to the interstitial lesions. When this process is not arrested, slowly advancing renal insufficiency results.

In accordance with the concept that pyelonephritis is more than an infection of the epithelium of the excretory structures of the kidney, the goal of treatment in any phase must be eradication of interstitial infection rather than simple sterilization of the urine. Although such sterilization can be accomplished readily by means of various technics, including small doses of urinary antiseptics, the larger goal is more difficult of attainment.

As a prelude to medical treatment, especially in recurrent and chronic pyelonephritis, adequate urinary drainage must be assured. In this connection, if urologic investigation discloses any cause for obstruction to the flow of urine, this abnormality is first corrected, if possible. Urine cultures are obtained as a guide to the choice of antibacterial agent.

Most cases of acute pyelonephritis can be treated successfully with sulfonamides. Penicillin, dihydrostreptomycin, aureomycin, chloramphenicol, or terramycin may have to be substituted when bacteriologic studies indicate that the infection is due to bacteria which are unresponsive to sulfonamides. In any case, the dose of the selected drug must be large enough to insure effective blood levels. With sulfonamides, an initial dose of 4 Gm. followed by 1 Gm. every 4 to 6 hours provides adequate blood levels of 5 to 10 mg. per 100 cu. cm. Ten days of such treatment is the arbitrary minimum. Afterward the patient should not be considered cured unless repeated urine cultures remain negative. When this is not accomplished, treatment should be similar to that employed in chronic pyelonephritis.

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[1] Birchall, R., and Alexander, J. E.: Medicine, 1950, **29,** 1.

When it is believed that recurrent pyelonephritis represents exacerbations of a chronic infection and in cases of chronic pyelonephritis, it is presumed that the infection will be more difficult to eradicate. Accordingly, the period of treatment with sulfonamides is lengthened to 3 weeks, and antibiotics are simultaneously administered during the first week. For this latter purpose Birchall and Alexander[1] recommend the combination of aqueous penicillin in doses of 300,000 units and dihydrostreptomycin in doses of 0.5 Gm. every 8 hours. Other agents might appropriately be substituted, depending on the bacterial cause of the disease. The criteria of cure are the same as for acute pyelonephritis.

Chronic pyelonephritis has long offered the challenge of a disease of infectious origin in which eventual degenerative processes cause death by virtue of renal insufficiency. It is to be hoped that therapeutic programs such as those recommended by Birchall and Alexander will meet this challenge. In these days of enlightened diagnosis and treatment of all classes of infections it is hard to believe that chronic pyelonephritis will remain neglected.

H. H. H.

Calendar of Meetings

May 18	Subcommittee on Mental Health
	Section on Radiology
	Washington Orthopedic Society
May 19	Board of Censors
	Subcommittee on Child Welfare
May 22	Executive Board
	Obstetrical Board
	Public Speaking Course
May 23	Section on General Practice
	Medical Officers' Reserve Units
May 24	Section on Pathology and Laboratory Medicine
	Physician-Veterans of World War II
May 25	Committee on Arrangements, Annual Scientific Assembly
May 29	Grievance Committee
	Pregraduation Ceremonies of George Washington University School of Medicine
May 31	Section on Anesthesiology
	Medical Advisory Board to Washington Regional Blood Center
June 1	Health Section, United Community Services
June 2	Committee on Attendance, A.S.A.
	Subcommittee on Child Welfare
	Clinical Society, Diabetes Association of D. C.
June 5	Committee on Medical Ethics and Deportment
	Subcommittee on Medical and Surgical Standards of Committee on Emergency Medical Service
	Public Speaking Course
June 8	Special Committee on Child Health Survey
	Subcommittee on Venereal Disease
June 9	Committee on Industrial Medicine
June 12	Committee on Scientific Exhibit, A.S.A.
	Subcommittee on Finance
	Special Committee on Child Health Survey
June 13	Medical Officers' Reserve Units
	District Dental Society
June 14	Committee on Radio, Motion Picture and Television, A.S.A.
June 15	American Medical Technologists
	D. C. League of Nursing Education

CORRESPONDENCE

WASHINGTON, D. C., June 6, 1950

MR. THEODORE WIPRUD, SECRETARY
D. C. MEDICAL SOCIETY
WASHINGTON, D.C.

DEAR MR. WIPRUD:

We are just in receipt of a letter from Dr. K. D. Graves, Secretary-Treasurer, Virginia State Board of Medical Examiners, in which he advises us that his Board will commence to issue borderline permits on July 1, 1950. In his letter he requests that we give this matter publicity.

Will you be so kind as to take care of this matter for us?

Sincerely yours,
DANIEL L. SECKINGER, M.D.
Secretary–Treasurer, Commission on Licensure, District of Columbia

PINK PROMISES FOR PALE PEOPLE*

DONALD R. RICHBERG, LL.B., LL.D.

Washington

Carlyle expressed sorrow more than a century ago that there was no Morrison's Pill for curing the maladies of society. But since that time there have been great advances in both medical and political science. Lydia Pinkham, Smith Brothers and Father John have led a glittering parade of the healers of sick human beings, preparing the way for those healers of a sick society: Uncle Joe, Aunty Atlee, Paul Robeson and Oscar Ewing, who have been quietly perfecting panaceas for all social and economic diseases.

Pink pills and pink promises for pale people are similar compounds, both sugar-coated. A popular medicine to improve either liver conditions or living conditions must be easy to swallow and offer quick relief from distress without the annoyance of discipline, diet and hard work that might lead to a permanent cure. In brief, it should be an attractive, habit-forming dope.

You may think that, although perhaps qualified to talk about political doping, I know little about medical doping. But, as a patient guinea pig who has been on the receiving end of medical dope for sixty-odd years, I think that I have a fair understanding of why millions of guinea pigs keep on going to doctors and millions keep on going directly to drugstores with prescriptions written by sympathetic friends or gifted ad writers.

The remedy offered by a scientific medico or politico often seems more unpleasant than the disease, and many a scared patient is still more scared of the surgeon than of the undertaker. And so miracle pills and magic tonics have been the stock in trade of charlatans in medicine and politics—ever since the original snake assured Adam and Eve that "an apple a day will keep the doctor away."

Even before psychotherapy rose from its lowly estate in patent-medicine advertising to its present lofty eminence as a metaphysical art of healing, physicians and politicians had a common understanding of the need to inspire their followers with more confidence in their remedies than they themselves felt. They had also a common understanding of the need to provide quick relief from pain and worry. Such relief, although temporary and not curative, should arouse faith, hope, and a charitable acceptance of the superior wisdom of the medicine man.

Perhaps this explains the toleration with which many disciples of Hippocrates have watched the rapid transformation in recent years of our constitutional, republican form of government into a national paternalism. They probably recognized, in the early days of the New Deal, the need for quick-acting, although dangerous, remedies.

They saw millions of workers unemployed and fear-ridden. They saw millions of farmers in desperate need, millions of home-owners facing the loss of their homes. They saw great banks closing and huge enterprises going down. Our whole economic structure was apparently disintegrating. It was no time for political doctors to advise an austere economical diet, self-discipline and plenty of rest, fresh air and sunshine. These people needed a shot in the arm, not a "kick in the pants," nor a lecture on mental hygiene.

The universal cry was: "Why doesn't the Government do something?" That cry is like a fire alarm to a good politician. He slides joyfully down the brass pole, and soon, as a helmeted hero, he is smashing your windows, cutting holes in your floors, and pouring tons of water over your household treasures, with a ruthless determination to save the community from destruction by fire, even though you may be drowned or bankrupted by the process of salvation.

As a surviving veteran of the rescue brigade of 1933 I can assure you that the dominant aim of the original New Deal was to save a free economy and a a free government from destruction. It was a rush of red-helmeted firemen to stop the spread of revolutionary flames. They were not red-shirted conspirators trying to kindle new fires, although it must be confessed that every now and then someone made the mistake of pouring gasoline on red hot coals.

You may find it difficult today to believe that these follies were not officially approved, particularly in view of the programs which are now being advanced and described as mere extensions of the New Deal design. It is also now evident that the New Deal educated many people to an unhappy dependence upon government, that it granted special privileges in payment for votes, and that it helped prepare the way for selling what the socialists call "security" to a host of timid people who have lost confidence in their ability to support themselves in the competitive struggles of a complex civilization. Thus millions were educated to sacrifice the individual liberties of a self-reliant people in exchange for political pledges which can never be redeemed—pledges, not of freedom to do things, which a government can guarantee, but of freedom from fear and want, which no government can guarantee—pink promises for pale people.

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* Address delivered before the Clinical Club of Washington, May 16, 1950.

But, how could the American people and their government avoid being influenced by the apparent "wave of the future" which was carrying all the little crafts of private enterprise off the stormy seas into the "security" harbors of paternal, big government? Look back and recall that Mussolini had created a Fascist socialism in Italy; Hitler was coming to power, bringing a Nazi socialism to Germany; Stalin was toughening a Communist socialism in Russia. In the Far East Japan was moving forward in the imperial design of dominating Asia.

There was a mood of defeatism in depressed America that could welcome, that almost demanded, a dictatorial President—a mood in which the Congress passed law after law giving vast, unprecedented powers to the President. I would be the last to claim that all such powers were wisely granted or wisely used. But I will assert that in the high command of the National Government there was no one of commanding influence who, before the Second World War, had any design or desire to transform our republican form of government into a national socialism in the pattern of either Fascism or Communism or any other variety of a paternalistic state.

And yet, unfortunately, in the years from 1933 to 1940 our Government moved from one expedient remedy to another, always seeking and never finding a lasting cure for economic ills, and always under pressure to give several million patients a quick relief from pains and worries that seemed intolerable—relief for the unemployed, for struggling farmers, for worried home-owners, for depressed businessmen. Even those who clamored for less government and more economy usually accepted the need for more government controls and more government spending than were good for them. Like the millions who voted for prohibition and patronized bootleggers, they advocated paternal discipline for others and sought lawlessly to retain individual liberty for themselves.

Then came the Second World War, moving nearer and nearer to our shores until it finally broke upon us with the fury of a hurricane. It is interesting here to recall that President Roosevelt himself then observed that Doctor New Deal had now become Doctor Win-the-War. But, Doctor Win-the-War had not become a socialist. The Government did not even take over the railroads as in the First World War. The Government summoned all the energies of a free people, cherishing as much of a free economy as could be maintained, tolerating exasperating obstructions and exactions by organized free labor, safeguarding the properties and the futures of farmers and businessmen, and dealing patiently with all the harassments of a self-governing people and the inefficiencies of a democratic government.

And so the War was won by a free people who proved again that there are reservoirs of strength available to the leaders of a free people that cannot be equaled by all the dammed-up resources of an efficient tyranny.

The victorious end of the War should have imposed a command upon farsighted politicians to restore promptly to the people their powers of self-government and their obligations of self-support. In America, at least, there was no such superhuman task of reconstruction as drove millions of confused, impoverished people in Europe to seek in new tyrannies a power great enough to establish a new order, a radically new order in which those who had suffered more in the War would suffer less in the hardships of reconstruction and reap more of the hoped-for gains of future coöperative production.

But the prewar Fascist "wave of the future" had been supplanted by a postwar Communist wave that threatened to engulf Europe and Asia and leave America isolated in a largely hostile world. Doctor Win-the-War must now become Doctor Win-the-Peace. The political medicine men, like other medicine men, are profoundly influenced by prevailing currents of opinion. "Social responsibility" became the keynote of political action here as in other lands. The United States, the greatest available reservoir of economic strength in the world, was told that it must accept its "social responsibility" for the welfare of mankind. It must tax and tap its great resources for the rebuilding of Europe. At the same time it must tax and tap those resources to raise the standard of living of all of its own citizens.

Here was a vast project for which there could be only one management, the National Government. So we were told that we must socialize industry and agriculture in order to stop the spread of national socialism. We must level down all inequalities of birth or achievement, whether social, economic or political, and eliminate those sinful incentives of private gain which are scorned by all well-trained Communists. We must protect the precious liberties of revolutionists to conspire and connive to overthrow the Government; and we must curtail the old "selfish" liberties of individuals to pursue happiness in their own way, to serve themselves, and to take care of their dependents. We must subordinate these ancient liberties to our new obligations as "servants of the state."

Such is the program that has emerged from the new doctrine of "social responsibility." In England it is called socialism. In Russia it is called communism. In the United States its disciples call it "liberalism" and its opponents recognize it as the "new slavery."

There is an article in the Constitution of the United States which provides that neither slavery nor involuntary servitude shall exist within the United States, except as a punishment for crime. As a lawyer I wish I could assure you that servitude to the Government is forbidden by that supreme law. But as a lawyer I must tell you that, under a Federal law, a farmer is not now permitted freely to raise grain on his own farm and feed it to his own livestock without being subject to severe penalties; and that law has been sustained by the Supreme Court. In other words, a man can be forbidden to work for himself and to use his own products, without conforming to a law regulating the price of his products and the amount of his production. Such a law may be benevolently administered, but the benevolent treatment of slaves has never justified slavery.

But the new doctrine of social responsibility is used to justify the new slavery; and the psychologists and psychiatrists of the new era have played no small part in persuading bewildered, gullible people that social responsibility enforced by government is the road to human salvation. According to the new gospel of Saint Marx the supreme personal responsibility is to be a faithful servant of political rulers whom we must rely upon to lead us, or to drive us, into the Promised Land. The kingdom of God will be no longer within us; it will be within the tender keeping of the Masters of the State.

If, as some of my old friends and enemies believe, I ever contributed in any small way to this horrendous development of the simple, humane and ancient doctrine that each of us is to some extent his brother's keeper, I must express my deep regret for such a sinning. I am inclined to follow the example of the humble negro who was accused of a petty crime and, refusing any legal advice, told the Court: "I plead guilty and waive a hearing." The puzzled judge said: "What do you mean, when you plead guilty and waive a hearing?" To which the accused answered: "I says, I done it and I don't want to hear no more about it."

Perhaps it is worth while to discuss briefly a few more examples of laws intended to enforce social responsibility.

We have laws fixing minimum wages and maximum hours and overtime wages, which in effect regulate all wages and hours, and which, incidentally, forbid the employment of a great many men and women who might otherwise be employed. The power of the National Government is expressly limited by the Constitution to the regulation of interstate commerce, but a window-washer in an office building has been held subject to the national Wage-Hour Law because his local work is assumed to "affect" interstate commerce.

We have national taxes now levied to compel employers or employees to pay insurance premiums for old-age pensions into the United States Treasury; and these premiums are then spent by the Government to pay current expenses. If a private insurance company spent its trust funds that way, it would be guilty of a crime. Of course, eventually new taxes must be levied to pay again for pensions already paid for.

Every year there are demands for more social insurance taxes to increase the promised payments and to cover more persons, thus adding to the taxpayer's load and to the number of persons depending on the Government.

There is now under consideration in the Congress a proposed law to establish a so-called Fair Employment Practice Commission and to endow it with power to compel employers to employ and to promote persons whom they do not wish to employ or promote, if, despite an employer's denial, the Commission believes that he has refused to hire or promote a person because of his race, color, or religion. Thus it is proposed that employers must employ and employees must work with persons with whom they do not wish to be associated. This comes closer to enforcing involuntary servitude on employers and employees than any law ever seriously considered since the Thirteenth Amendment was written into the Constitution.

As an effort at "thought control" this proposed law is quite worthy of the enthusiastic support which it is receiving from all Communists. But it is quite unworthy of any support by genuine liberals or by anyone who believes in, or is sworn to support, the Constitution of the United States, wherein Congress is denied any power to enact such a law by the First, the Fifth, the Ninth and the Tenth Amendments, as well as by the Thirteenth.

The American people are being constantly assured that our paternal government not only is going to make us good and unselfish by law, but it is also going to make us rich. This assurance is a political necessity, because our socializing government is a very expensive one and even starry-eyed Fair Dealers are wondering how they are going to pay their bills. Ten years ago in peacetime Federal taxes took away only one fourteenth of our income; today in peacetime Federal taxes take more than one fifth. At this rate of increase, with projects of guaranteed income and "social security for everyone" well under way, the prospect is not remote or fanciful that the National Government will soon be taxing half of our income away from us. After "liberal" politicians have provided this "liberal" spending power for a "liberal" government, then we are assured that only a few million liberally paid political employees will be able to take care of the rest of us as wards of the Government, in the same generous way as we now take care of the Indians.

In addition to direct taxes, of course the miracle of "deficit financing" to make more money is relied upon by the harlequin economists who infest government offices. This is a modern fancy description of an old, old confidence game. You borrow money and spend it for current expenses, and then, out of their own money, you pay interest to your creditors so that you can keep on borrowing money. Read the story of The Mississippi Bubble, that burst in 1720 in France. Read the story of Ponzi, the American financial crook, or of Krueger, the Swedish swindler. Read Garet Garrett's book on "A Bubble that Broke the World," explaining how the United States floundered into the Great Depression, lending money so that other people could buy our products and pay for them with our own money. "Deficit financing" is just another device in this old game of frenzied finance. You tax yourself rich.

By using money taxed as well as borrowed from you, your government can buy your products at artificially increased prices, inflate your income, and then you can pay increased taxes. Thus over and over again your government makes and spends more dollars for you than you could make and spend for yourself. It is a wonderful scheme, if you don't understand it—if you don't understand that a financial bubble must burst sometime, and that when this one blows up, like an atomic bomb, it will make a wonderful explosion.

The President on January 4 of this year told the Congress about the State of the Union, not as of today, but as of fifty years from now. Peering into the future with supertelescopic vision he told us that in A. D. 2000 national production would be about one trillion dollars and "the real income of the average family would be about three times what it is today."

He didn't explain that we have doubled our national income and our individual average income in dollars in recent years by the simple process of calling fifty cents a dollar. He didn't explain that if we keep on raising wages, raising prices, raising taxes, increasing our debts, spending more than we make, and rapidly devaluating the dollar, we can raise our national income to a trillion dollars long before A. D. 2000. We may even get as dollar-rich as the Germans were in 1923, when it cost a million marks to buy a package of cigarettes. With fifty-cent dollars today and ten-cent dollars tomorrow, just think how rich we are going to be!

The medical profession is now facing the preliminary campaign to socialize the practice of medicine. In this way the doctors are to make more money and the patients are to get more treatments at lower prices. It's just like the Brannan plan for agriculture, more money for farmers and lower prices for consumers. It's the miracle of the loaves and fishes with only one flaw: Everybody will pay more taxes. But that will be easy because we will all have more "income." There we go! Off on the same old merry-go-round again!

It would probably bore you and not enlighten you for me to discuss the pending bills, which are of course only the opening wedge for the later enactment of more and stricter regulatory laws. You will recall that all exercises of new Federal authority begin modestly so as not to terrify the eventual victims into violent opposition until they have been weakened and indoctrinated for complete submission. Who would have voted for the Income Tax Amendment in 1913 if he had expected that in 35 years Federal income taxes would take away from 20 to 89 per cent of a man's income?

In a matter of such vital interest to your profession you are presumably much better informed than I am of the merits or demerits of the proposed Federal health insurance, and of the wisdom, preferability and workability of many alternative programs of private insurance. You also know more than I about the extent and value of the services you are rendering to paying and to non-paying patients and to the public health.

What I can contribute to your discussions is, however, a lawyer's analysis of the socialization of other private enterprises by the National Government, which has been proceeding with amazing speed in recent years. You may have heard that the National Government has only the powers definitely delegated to it by the Constitution, all of which are definitely limited by many denials of political power carefully written in the Constitution. You may have assumed that, even if the National Government enters upon the field of regulating the practice of medicine, it will have no power to control effectively the services of a physician to his private patients, or to compel him to submit his judgment, the employment of his time, and the determination of his compensation to the regulatory power of a Federal bureaucracy. It is possible that some of your legal advisers still believe that judicial protection of your long-accepted rights and liberties would nullify any extremely vicious legislation.

To the older members of the profession I would say that you may be permitted to round out your lives free from political servitude. But to all others I would say that, unless you join in vigorous opposition to the tyranny of the so-called "national welfare state," which is expanding rapidly over more and more fields once preserved for private enterprise, and if you do not play your part in saving our free economy from political destruction, you will find yourselves, long before retirement, fighting a desperate and lonely battle in a lost war for individual liberty.

A recent president of the American Medical Association, who was a college classmate of mine, met me in a Chicago club some years ago and pleasantly inquired: "Have you got any sense now?" I realized that my Washington reputation as a persistently conservative member of the New Deal family had not spread to my home town. Hence, when, relieved of official obligations, I had begun to criticize publicly further paternalistic extensions of Federal power, many of my old friends thought I had experienced a sudden conversion to the old American faith in a free government and a free economy, which had always been my political religion. So, I smiled at Dr. Irons and simply said, "I hope so."

Tonight I am going to quote the candid words of this old friend and say to doctors who are beginning to see and feel the chill shadows of a political tyranny creeping toward them, "Have you got any sense now?" If you have, you will not merely gird your loins for a struggle to preserve the freedom, the integrity, and the personal responsibility of members of your honored profession. You will turn away from all the false preaching of those who would impose on you more and more "social responsibilities" as servants of the state, or, in plain words, as servants of the political rulers of the state.

You will stand upon your God-given right to accept and to fulfill as much personal responsibility for the welfare of others as lies within your powers. You will refuse to accept social responsibilities devised and forced upon you by the commissars of national socialism, cleverly disguised as the evangelists of the welfare state. You will join forces with all men everywhere who are ready and willing to fight for the right of free men to plan their own work, to live their own lives, and to serve no masters except their conscience and their God.

Our Living Past Presidents

WILLIAM HITE HOUGH, M.D., President, 1930

George Washington was inaugurated President of the United States in New York, April 30, 1789. On June 1 and 2 of the previous year he had made these entries in his diary: " . . . we breakfasted and, in company with Mr. Smith, continued our journey. Dined at Leesburg and lodged at Mr. John Hough's. About five o'clock, after an early breakfast, we set off piloted by Mr. Hough, through by-roads over short hills by the House and Mill of one Belt, for the mouth of the Shenandoah." John Hough was nearly seventy at the time he was "piloting" Washington on horseback. This may serve to explain the apparently perennial youth of his great-great-grandson, the sixty-fourth President of the Medical Society of the District of Columbia.

William Hite Hough was born, October 31, 1877 at Waterford, Loudon County, Virginia. He is the son of the late David Emanuel Brown Hough and Sarah Winifred Bennett Hough. The family were Quakers. He is a lineal seventh generation descendant of Richard Hough, a colleague of William Penn, who arrived in the "Province of Pennsylvania" on the ship *Endeavor*, out of London, September 29, 1683. In 1744 Richard's grandson, John Hough, together with a large group of relatives and friends, emigrated from Pennsylvania to the wilderness of northern Virginia and built there the home place he named "Corby Hall." "Washington slept here." The Hough family was destined to play a notable role in the history of the Old Dominion. Dr. Hough's great-grandmother, Eleanor Hite Hough, was a granddaughter of Joist Hite, who, with a band of other hardy pioneers, in 1732 emigrated to the Shenandoah Valley when the territory west of the Blue Ridge was a primeval waste. Their hegira from Pennsylvania is very interestingly described by Mary Johnston in her historical novel, "The Great Valley." Joist Hite's son John was a colonel in the French and Indian Wars. On his mother's side, Dr. Hough is a great-great-grandson of Charles Bennett, a member of Morgan's Company of Riflemen in the Revolutionary War. Descent from this scion of Cavalier stock may account for certain cavalierisms that might otherwise remain inexplicable in a Quaker! His father, David E. B. Hough, demonstrated his moral courage by joining the only Union military unit recruited from Virginia during the Civil War. Such a splendid heritage would naturally provide the genes for those qualities of mind and heart necessary to make possible the distinguished career now to be outlined.

After the usual grammar and high school education, then considered adequate preparation for the study of medicine, young Hough graduated from the old National School of Pharmacy and went to work behind the counter of a drugstore. While thus employed he acted as Assistant Professor of Pharmacy at his recent Alma Mater and also matriculated in medicine at Georgetown University, from which he received his degree in 1904. In this same year he was appointed to the staff of St. Elizabeths Hospital, where he remained eight years. There he was fortunate in having the late Dr. William A. White as Superintendent and also in working directly under the noted pathologist, the late Dr. I. W. Blackburn. In 1909 he went abroad to spend a year in Vienna, working in experimental syphilology in the laboratory of Professor Finger; he also spent a short time in Munich under the direction of Professor Plaut. The science of syphilology was then in its infancy. Fritz Schaudinn's discovery of the etiologic agent had been made only four years previously. Ehrlich had but just announced the development of salvarsan and a year was to elapse before the perfection of neoarsphenamine. While the Wassermann reaction had been known since 1904, it had never been attempted in Washington. Upon his return here, Dr. Hough continued his pioneering studies of syphilis in both the experimental and therapeutic fields. In some of these the late Dr. H. J. Nichols was associated with him. Their studies continued for several years and resulted in the publication by them of one of the most important articles in the early literature of syphilis. It was entitled "Demonstration of Spirochaeta pallida in the Cerebrospinal Fluid from a Patient with Nervous Relapse Following the Use of Salvarsan."[1] The strain of Treponema pallidum herein identified by them was immediately accepted by syphilologists as the standard; it has been universally and continuously since referred to as "the famous Nichols-Hough strain."[2]

Concerning this phase of his work none other than the great authority Ehrlich said that the Nichols-Hough strain had furnished "the missing link," demonstrating that the phenomena of the so-called neurorelapse, not infrequently observed to follow salvarsan therapy, were due to an active syphilitic process rather than to a toxic reaction to the arsenical. This ex-cathedra statement ended the heated dispute that had long raged on this point between Ehrlich and Finger, representing the Berlin and Vienna schools, respectively; it could not have been made thus categorically had it not been for the work of a then obscure student in Washington.

In 1912, after this very adequate preparation, Dr. Hough decided to begin private practice here and to specialize in syphilology and neuropsychiatry. The usual wait for patients, particularly in such a restricted practice, was not to be his. He and the late Dr. J. J. Kinyoun of the D. C. Health Department immediately began making Wassermann tests, even before the Army Medical School did so, and the demand for them increased rapidly. After a few appearances before the Medical Society, where he presented and discussed papers dealing with syphilis, the consensus became quickly and correctly established that he knew more about this disease than the remainder of medical Washington combined. In any event his practice and reputation increased *pari passu*. In his specialty his opinions soon came to be regarded as those of a court of last resort, with the result that much of his time and thought, then and always, have been lavished on helping his colleagues with their problems in this field. While not remunerative this has always been a signal contribution to professional solidarity.

At this point one may ask: What is the secret that secured for him and has maintained his place of preeminence? Is the answer not to be found in his understanding and meticulous avoidance of the pitfalls of overspecialization? He has always preserved a catholicity of interest in medicine and a cosmic outlook toward its problems. This approach to specialism may have been facilitated by the universal impingement of syphilology on every field of medicine. Yet many specialists fail to attain it; it would seem to require a certain prescient acumen only to be looked for in the truly broad-minded physician.

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[1] Nichols, H. J., and Hough, W.H.: J.A.M.A., 1913, **60**, 108.

[2] Stokes, J. H., Beerman, H., and Ingraham, N. R., Jr.: Modern Clinical Syphilology, 3rd ed. Philadelphia: Saunders, 1944, page 8.

As was to be expected, such knowledge and ability received prompt professional recognition. Dr. Hough is a member of the Georgetown Clinical Society, and also an ex-president of the former Society for Nervous and Mental Diseases, and the Clinico-Pathological Society. He was First Vice President of the Medical Society of the District of Columbia and for six years a member of its Executive Committee. For sixteen years he was a consultant in neuropsychiatry at the Mt. Alto Diagnostic Center of the Veterans Administration. He is a member of the staff at Garfield and Episcopal Eye, Ear and Throat Hospitals and consultant in syphilology at the Columbia Hospital for Women. He is also a member of the Medical Advisory Committee of the Poliomyelitis Foundation. For several years he lectured at both Georgetown and George Washington Medical Schools, a well-nigh unique distinction not likely to have been accorded him had not both institutions acknowledged him to be *sui generis*.

In his attitude toward life in general and medicine in particular, Dr. Hough is a confirmed conservative. This fundamental characteristic was clearly indicated when, the year following his graduation, he published in the *Johns Hopkins Hospital Bulletin* the first[3] of his many contributions to medical literature. In it he reported an aneurysm so huge that the late Dr. Lewellys F. Barker incorporated an illustration and description of it in his monumental work, "Monographic Medicine." It could even have been described as Brobdingnagian! But such hyperbolism was not for the young author; he was content to term it "unusually large." Toward alleged advances in medicine he has always maintained a healthy skepticism. Thus in a letter to the writer on the use of penicillin in the treatment of syphilis he says: "It is probably the most efficient remedy yet devised for the control of infectiousness; as for cure its efficiency has not yet been definitely determined."

In 1911 Dr. Hough married Miss Louise Sackmann of New York City. They have one daughter, Edith, who graduated from Radcliffe College *cum laude*. She has traveled extensively in Europe, has published a delightful book, "Sicily: The Fabulous Island," and now has in preparation a companion volume on medieval Italy.

To have limited this biographical sketch to Dr. Hough's accomplishments as a doctor would have been but to fail in any adequate characterization of him as a man. About 1923 he bought a thirty-odd acre farm at Sandy Spring, Maryland, and on it built a most attractive modern residence. This has afforded him an unlimited opportunity to enjoy an assortment of strenuous avocations that have served him well in transforming an abandoned farm into a place of rare beauty and distinction. Exotic horticulture, animal and poultry husbandry, even aviculture, apiculture and pisciculture have responded marvelously to his skilled touch.

Needless to say a rural haven such as this was not long overlooked by his many friends. "Going out to see old Hough" soon became a standard week-end diversion. All were received by their host and hostess with a signally gracious hospitality. The amateur apiarists got stung; the Nimrods shot his birds; the piscatorially-inclined invaded his fish ponds; the bibulous drank his liquor; and the sporty attended his cock-fights, only to learn to their sorrow that the Hough strain of gamecocks was quite as virulent, and possibly as profitable to their owner, as was his strain of Treponema pallidum. The gamblers paid him liberally for his lessons in draw poker and accorded him the affectionate but respectful title of "the old master"—always pronounced with a broad *a*. In order to get an exact nuance of desired meaning, one may be permitted to drop into the vernacular occasionally. Despite a superficial austerity and mien of reserve and conservatism, Bill Hough is rated "a great guy" by one and all.

The writer has been greatly privileged to enjoy a friendship with him that has now endured for exactly one half a century. This should be time enough to permit a sound evaluation of character and accomplishment.

William Hite Hough is a great scholar, a great doctor, and a great gentleman.

PRENTISS WILLSON, M.D.

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[3] Hough, W. H.: Johns Hopkins Hosp. Bull., Balt., 1905, **16**, 331.

REPORT OF BOARD OF TRUSTEES OF MEDICAL SERVICE*

It is again my privilege to present on behalf of our Board of Trustees a review of the operations of Medical Service of the District of Columbia for the year ended March 31, 1950.

As you know, Medical Service is governed by a Board of 11 Trustees. Seven members of the Board are elected from the Medical Society of the District of Columbia. Our Trustees have put in many long hours of service. If it were not for their interest, it would be impossible for the Plan to function well. I am sure that you are aware of this and that you will join me in thanking the Trustees for the loyal and faithful service they are rendering.

I regret to inform you that during the past year Dr. Warren Sager had to resign from the Board because of his health. We are fortunate in having Dr. Charles Stanley White as his successor. Dr. William P. Herbst, Jr. was named to succeed Dr. Sager as First Vice President.

Enrollment. During the past year the Blue Shield movement continued to make excellent progress throughout the country. Sixty-seven Blue Shield Plans reported an enrollment of 11,302,233 members as of September 30, 1949, the last date for which we have figures. In addition, there are 12 non-member Plans which have an enrollment of 1,836,557. These 79 Plans now cover 13,138,790 members. Although it is the youngest Blue Shield Plan, at the end of its second year Medical Service enjoys the distinction and the responsibility of ranking third among the 67 Blue Shield Plans in the country in percentage of population enrolled.

During the year ended March 31, 1950, Medical Service enrolled considerably more than 72,000 persons. It is astonishing to me that in our first two years we have enrolled about 210,000 persons and that today our Plan is surpassed, in percentage of population covered, only by the Delaware and Michigan Plans. The Delaware Plan has been in operation since 1943, the Michigan Plan since 1939.

Perhaps it will help you to appreciate the rapid growth of our Plan if I tell you that Group Hospitalization has been in existence for four years before that Plan attained an enrollment of 50,000 persons. GHI labored for six years before touching the 100,000 level and nearly 10 years elapsed before 200,000 persons were covered by the Hospital Service Plan. Group Hospitalization, of course, did a tremendous amount of pioneer work and it has been our good fortune that, as a result of this work, the people of our community were "sold" on the principle of prepayment when our Plan began operations. There is a widespread demand for the services and protection we offer and I am sure you will be pleased to hear that, with relatively few exceptions, when new groups are established the employees want the protection of the Surgical Service Plan and subscribe for it along with their Hospitalization protection. During the past year, for example, 397 new groups were established by Group Hospitalization and in 357 of these groups, a majority of the employees were also enrolled in the Surgical Service Plan.

I wish I could say that our progress in other respects has been as satisfactory as our growth; however, my pride is tempered by the realization that we are confronted with urgent problems which must be solved soon if we are to continue to go forward. Before I touch upon those problems, however, I would like to review briefly the more important developments of our Plan during the past 12 months.

AMA Seal of Acceptance. We have been advised that Medical Service has been granted AMA's Seal of Acceptance by the Council on Medical Service. To obtain this recognition it was necessary that our Plan meet the minimum requirements established by the AMA.

Administration. Since Medical Service began operations in 1948, Group Hospitalization, as our agent, has been responsible for all phases of administration, including the enrollment of subscribers, the collection of subscription charges, and the payment of claims.

I want to take this opportunity to thank the staff of Group Hospitalization for the excellent job they have done. We appreciate the splendid record the Enrollment Department has made. Our Plan has been most fortunate to have had the able services of Mr. F. P. Rawlings, Jr., Director, and Mr. Harmon J. Swink, Assistant Director, of Group Hospitalization. We are also indebted to Dr A. Clagett Gray whose services as Medical Advisor have helped clear away many difficulties in claims administration.

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* Presented at the Second Annual Meeting of Medical Service of the District of Columbia, April 28, 1950.

Appointment of Manager-Coördinator. The affairs of Medical Service have grown so rapidly and to such an extent that it became necessary to obtain the services of a Manager-Coördinator. Because of the specialized experience required, it was decided the position could best be filled by someone from within Group Hospitalization who was familiar with local conditions as well as with the problems of Medical Service. Accordingly, Mr. George B. McGovern, formerly Office Manager of GHI, has been designated for the position. He appears to be well qualified for the duties and responsibilities of his office. He has been associated with Group Hospitalization since 1943 and has acquired an intimate knowledge of the operations of both Medical Service and Group Hospitalization as they affect Participating Physicians and Surgical Service Subscribers. Mr. McGovern not only will work closely with your officers and Trustees; he will be available at all times to assist you with any problems you may have that relate to Medical Service.

Participating Physicians. The number of Participating and Coöperating Physicians has increased steadily. Our last list of Participating Physicians, published February 1, 1950, contained the names of 1,273 doctors compared to 1,080 on the list published February 4, 1949. Since our last list was published I am informed that additional physicians have offered their services and that the next list will contain more than 1,300 names.

More than a year ago, our by-laws were amended to permit physicians who are not members of the Medical Society of the District of Columbia to participate in the Plan as Coöperating Physicians. On February 4, 1949, there were 102 Coöperating Physicians, of whom 87 were practicing in nearby Maryland and Virginia and 15 were located in the District of Columbia. On February 1, 1950, 173 Coöperating Physicians were listed, including 137 in Maryland and Virginia and 36 in the District of Columbia.

The number of physicians participating in the Plan may be expected to continue to increase in the next year, although at a much slower rate than formerly because most of the physicians engaged in active practice are already enrolled. We shall continue to invite new members of the Medical Society and other physicians who are eligible to participate.

Payments to Physicians. The growth of your Surgical Service Plan is further reflected by the sharp increase in the number of claims approved and in the amount of money paid to physicians for the professional services they rendered to subscribers. Since April 1, 1948, when the Plan began operation, 52,186 claims have been processed and the Plan has paid physicians a total of $1,780,842. During the earlier months of our first year of operations, because of the waiting period for obstetrical benefits and because enrollment was just getting under way, relatively few claims were presented and the outlay for the entire 12 months ended March 31, 1949, amounted to only $320,713. But as more subscribers completed the waiting period and as the enrollment increased, the number of claims and payments to physicians mounted. During the last 12 months, there were 42,992 payments to physicians amounting to $1,459,994. There is every indication that the number of claims and the amount of money paid to physicians will continue to increase. During the first quarter of this year, for example, more than 12,000 claims were processed and the payments to doctors totaled more than $420,000.

About a year ago due to the ever increasing number of accepted claims, it became apparent that our expenses were beginning to exceed our income. Foreseeing difficulties for the future, we obtained the services of an Actuary, and upon his recommendation your Trustees adopted certain controls which we were able to begin to put into effect last fall. These were:

1. *Controls in Underwriting.*—Requiring larger percentages of subscribers in employed groups to obtain a wider spread of risk.

2. *Contract Term Controls.*—In the new contract all preëxisting conditions are excluded for a period of 10 months. In the old contract, many claims had to be paid within the first few months for nonacute conditions.

3. *Claims Administration Controls.*—More careful scrutiny of claims to more fully protect the large body of subscribers and the physicians.

These controls have been instituted but they have proven only partially effective. Our expenses have continued to exceed our income, causing a further depletion of funds instead of improving our financial position as we had hoped would happen.

There is no question of the ultimate success of Medical Service, but further additional changes may be necessary to strengthen its position financially. At the discretion of your Board of Trustees, it may be wise to take one or more of the following steps:

1. Increase subscription rates
2. Institute additional controls
3. Prorate payments to physicians temporarily until our position has improved.

Any or all of these moves may be deemed wise until Medical Service again shows a favorable balance and builds up a reasonable reserve.

It should be apparent that although I suggested a revision of the Fee Schedule a year ago, it would be most unwise to do so until Medical Service has the money to meet the additional cost. Rest assured, however, that your Board has not overlooked the limitations and inequities in the present schedule. We shall at the earliest possible time completely revise the Schedule with your advice and assistance.

Expansion of Services. Last year when speaking to you I suggested that certain services would be added for the further protection of the subscribers and for the convenience of the Participating Physicians. It had been hoped that medical care within the hospital and certain surgical procedures in the office could be offered in addition to the surgical and obstetrical care that is now provided. To the present date, this has not been possible, but the near future should see them added to our present benefits and conveniences.

One of the criticisms directed at prepayment plans has been that the protection they offer is available only to employed groups, and this has been true of our Plan; however, during the past year your Board of Trustees authorized Medical Service to offer the Surgical Service Plan to persons who are unable, for one reason or another, to enroll through a group. The Board directed that the Plan be made available to Non-Group Subscribers at rates approximately 20 per cent higher than the rates paid by Group Subscribers. The contracts that will be issued to Non-Group Subscribers will not provide benefits for obstetrical service. In all other respects, the benefits offered to Non-Group Subscribers will be the same as the benefits offered to Group Subscribers. I am informed that the preparations for Non-Group enrollment are going forward and that the Plan will be made available to Non-Group Subscribers about June 1.

This added service is a direct answer to those opponents of voluntary medical care planning who wish every resident of every community covered by medical insurance.

Committees. It would have been impossible for Medical Service to have progressed without the invaluable assistance and counsel of our Committee members who, at great sacrifice to themselves, have expended considerable time and energy in service to your Plan. The activities of the Committee on Physicians' Services and of the Physicians' Relations Committee will be presented to you later. However, I would like to remind you that we are particularly indebted to the Committee on Physicians' Services, which consists of Dr. Henry L. Darner, Chairman, Dr. Herbert S. Gates, and Dr. Leo B. Gaffney, who succeeded Dr. White (who is now a member of the Board). These are the men who review unusual and controversial cases, a difficult and sometimes an unwelcome duty. The committee meets once a month, and only those who have participated in the deliberations can begin to appreciate the work that is involved.

The Committee on Physicians' Relations consists of 15 members, including 2 engaged in general practice. The other members are from specialties. Recently, by action of the Board of Trustees, 5 representatives were appointed to represent other portions of the Metropolitan Area. Two recent meetings of the committee were well attended and well received. Through further work of this group, Medical Service expects to keep Participating and Cooperating Physicians advised of the Plan's problems and progress and to obtain the advice and help of our full membership.

Neither the committee members nor your Trustees receive compensation for the hours they spend on the problems of our Plan. Their only reward is the satisfaction they derive from their good work which will long endure.

CONCLUSION

In concluding my report, I cannot emphasize too strongly that the future of our Plan rests almost entirely in our own hands and that we, as physicians, individually and collectively, have a tremendous stake in its continued success. Medical Service was established by physicians; it is governed by physicians, who determine what services they shall provide under the Plan; how much they shall be paid by the Plan for the services they render; and how much their patients who enroll shall pay the Plan for the protection it provides. In short, Medical Service is the Doctors' Plan, and because this is true we cannot afford to give it less than our best.

I wish to express again my personal pride, and that of each of your Trustees, in the progress we have made and to thank you for the coöperation you have given us during the past year.

Never, in my opinion, have we as physicians been presented with a greater challenge or a greater opportunity to render an important service to our community. Never have we had a greater opportunity to safeguard our freedom by providing a fine type of medical care unfettered by undue restriction and regulation.

Frank D. Costenbader, M.D.
President, Medical Service of the District of Columbia

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interests of our readers and as space permits. Physicians are urged to submit reviews of additional current books which, in their opinion, merit comment.

Life Among the Doctors. Paul De Kruif, in collaboration with Rhea De Kruif. Price, $4.75. Pp. 470. New York: Harcourt, 1949.

Psychiatric Sections in General Hospitals. Paul Haun, M.D., Med. Sc. D., Assistant Professor of Psychiatry, Georgetown University Medical School. Price, $4.00. Pp. 80. New York: Architectural Record, 1950.

The Problem Drinker. Joseph Hirsh. Price, $3.00. Pp. 211. New York: Duell, Sloan & Pearce, Inc., 1949.

Sex Without Fear. S. A. Lewin, M.D., and John Gilmore, Ph.D., with a Foreword by Sarah K. Greenberg, M.D. Price, $3.00. Pp. 121. New York: Lear Publishers, 1950.

The Practice of Medicine, 5th ed. Jonathan Campbell Meakins, C.B.E., M.D., LL.D., D.Sc., Formerly Professor of Medicine and Director of the Department of Medicine, McGill University; Formerly Physician-in-Chief, Royal Victoria Hospital, Montreal; Formerly Professor of Therapeutics and Clinical Medicine, University of Edinburgh; Fellow of the Royal Society of Edinburgh; Fellow of the Royal Society of Canada; Fellow of the Royal College of Physicians, London; Fellow of the Royal College of Physicians, Edinburgh; Honorary Fellow of the Royal College of Surgeons, Edinburgh; Fellow of the Royal College of Physicians, Canada; Fellow of the American College of Physicians; Honorary Fellow of the Royal Society of Medicine. Price, $13.50. Pp. 1558, with 518 illustrations, including 50 in color. St. Louis: Mosby, 1950.

The Merck Manual of Diagnosis and Therapy—A Source of Ready Reference for the Physician, Eighth Edition. Price, $4.50; Thumb-Index Edition, $5.00. Pp. 1592. Rahway, N. J.: Merck & Co., Inc., 1950.

Veterans Administration Technical Bulletins Series 10, 1949, Washington 25, D. C.

The Cytologic Diagnosis of Cancer, by the staff of Vincent Memorial Laboratory of the Vincent Memorial Hospital. A Gynecologic Service Affiliated with the Massachusetts General Hospital, Boston, Mass. The Department of Gynecology, Harvard Medical School. Published under the sponsorship of the American Cancer Society. Price, $6.50. Pp. 229, with 153 figures. Philadelphia: Saunders, 1950.

A Primer for Diabetic Patients—An Outline of Treatment for Diabetes with Diet and Insulin including Directions and Charts for the Use of Physicians in Planning Diet Prescriptions, 9th ed. Russell M. Wilder, M.D., Ph.D., F.A.C.P., Professor and Chief of the Department of Medicine of the Mayo Foundation, University of Minnesota; Senior Consultant in the Division of Medicine, Mayo Clinic. Price, $2.25. Pp. 200, with 8 figures. Philadelphia: Saunders, 1950.

Textbook of Endocrinology, edited by Robert H. Williams, M.D., Executive Officer and Professor of Medicine, University of Washington Medical School, Seattle, with the collaboration of: Peter H. Forsham, Harry B. Friedgood, John Eager Howard, Edwin J. Kepler, William Locke, L. Harry Newburgh, Edward C. Reifenstein, Jr., William W. Scott, George Van S. Smith, George W. Thorn, Lawson Wilkins. Price, $10.00. Pp. 793, with 168 illustrations. Philadelphia: Saunders, 1950.

CENTENNIAL CELEBRATION OF GEORGETOWN MEDICAL SCHOOL

The Centennial Anniversary Celebration and Alumni Reunion of Georgetown University School of Medicine, June 9 and 10, was one of the highlights of Georgetown University Commencement Week-end.

A full two-day program of medical symposia, operative clinics and scientific exhibits was presented by the Committee on Arrangements, of which Dr. Raymond T. Holden, President of the Medical Alumni, was Chairman. Participants in the symposia are listed below. Most of them are members of the District Medical Society.

Symposium on Cardiovascular Disease: Dr. Hugh H. Hussey, *Moderator;* Drs. Edward D. Freis, Bernard J. Walsh, Edgar Davis, Thomas F. Keliher and John Nestor.

Symposium on Obstetrics: Dr. Joseph J. Mundell, *Moderator;* Drs. Joseph B. Sheffery, Raymond T. Holden, George J. Ellis and Benjamin J. Mundell.

Symposium on Pediatrics: Dr. William Francis O'Donnell, *Moderator;* Drs. Joseph S. Wall, J. Edmund Bradley, John E. Cassidy and John B. Ross.

Symposium on Pediatric Surgery: Dr. Robert J. Coffey, *Moderator;* Drs. Frederic Burke, Marshall Sanford, Gerald McAteer, John H. Bayly, F. Joseph Brinig and John E. Cassidy.

Symposium on Internal Medicine: Dr. Harold Jeghers, *Moderator;* Drs. John J. Curry, O. Benwood Hunter, Jr., John R. Cavanagh, Sol Katz and and Laurence H. Kyle.

Symposium on the Treatment of Venereal Disease: Drs. Theodore J. Bauer, Mario Mollari and Pasquale J. Pesare.

Symposium on Gynecology: Dr. William J. Cusack, *Moderator;* Drs. Edmund F. Daley, William G. Leary, John W. Walsh and Andrew A. Marchetti.

Symposium on the Treatment of Premalignant Lesions: Dr. Fred R. Sanderson, *Moderator;* Drs. Robert J. Coffey, Murray Copeland, Paul Kiernan, C. Edwin McNamara, Philip Caulfield and Victor R. Alfaro.

Symposium on Pediatrics: Dr. William Francis O'Donnell, *Moderator;* Drs. John Mark Higgins, Charles A. Millwater, Nicholas G. Pistolas and Fernando R. Leyva.

Dr. Holden presided at a general session on Friday afternoon, June 9. Following introductory remarks by The Reverend Paul A. McNally, S.J., Dean of the School of Medicine, addresses were given by: Sister Mary Antonella, S.C.N., Administrator of the Hospital; Dr. Maurice J. Costello, Clinical Professor of Dermatology and Syphilology, New York University-Bellevue Medical Center College of Medicine; Dr. Bernard J. Ficarra, Professor of Research-Physiology, St. John's University, Brooklyn, New York; Dr. Anthony Sindoni, Jr., Chief of the Metabolic Center, Philadelphia General Hospital; and Dr. Theodore Koppanyi, Professor of Pharmacology, Georgetown University School of Medicine.

Twenty-six scientific exhibits were on display. Sponsors were: Drs. E. D. Freis, Frank Finnerty, B. J. Walsh, F. J. Murphy, C. E. Rath, L. H. Kyle, Paul Doolan, John Ross, O. B. Hunter, Jr., John Curry, Harold Stevens, G. W. Ault, A. F. Castro, P. A. Caulfield, J. R. Veal, O. H. Fulcher, J. P. Gallagher, H. S. Madigan, R. J. Coffey. W. A. Amoroso, Jr., John Walsh, Andrew Marchetti, O. C. Solnitzky, Walter Hess, Theodore Koppanyi, Mario Mollari, P. Pesare, C. F. Geschickter, M. M. Copeland, Martin Rubin, W. C. Mulry, W. E. Baensch and Messrs. T. A. Litovitz, R. O. Thomas and Dean Cowie.

The celebration concluded with an Alumni Dinner, which was held in the Grand Ballroom of the Mayflower Hotel. The guest speaker was Senator Styles Bridges of New Hampshire.

In addition to Chairman Holden, the Medical Committee on Arrangements consisted of Dean McNally, of the Medical School; Sister Mary Antonella, Administrator of the Hospital; and Drs. A. J. Connolly, Russell J. Fields, O. Benwood Hunter, Jr., Michael McInerney, Stephen W. Nealon, Jr., and William B. Walsh.

The School of Medicine of Georgetown University was formally opened in 1851, its first students receiving their instructions in a building at 12th and F Streets, N.W. In 1868 the School was moved to a site at 10th and E Streets, N.W., where it remained until 1886, when it was moved to still larger quarters on H Street between 9th and 10th Streets, N.W. The H Street School sufficed for more than 40 years, steadily expanding by additions to the original building to accommodate a growing registration and an expanding curriculum. Ground for the present school was broken on January 3, 1929, and classes began there 18 months later.

The first unit of Georgetown Hospital was opened in 1889. Since then three units have been erected, the latest and most pretentious being the present hospital, completed in 1947.

The faculty of Georgetown University School of Medicine is particularly proud this year of the fact that four of its graduating students were among the seven prize winners for highest marks among some

(*Continued on page 414*)

News and Personals

The American College of Physicians announces that a limited number of **Fellowships in Medicine** will be available from July 1, 1951 to June 30, 1952, the stipend to be from $2,200 to $3,200. These Fellowships are designed to provide an opportunity for research training either in the basic medical sciences or in the application of these sciences to clinical investigation. They are for the benefit of physicians who are in the early stages of their preparation for a teaching and investigative career in Internal Medicine. Assurance must be provided that the applicant will be acceptable in the laboratory or clinic of his choice and that he will be provided with the facilities necessary for the proper pursuit of his work.

Application forms will be supplied on request to the American College of Physicians, 4200 Pine Street, Philadelphia 4, Pa., and must be submitted in duplicate not later than October 1, 1950. Announcement of awards will be made in November, 1950.

The Foundation of the American Society of Plastic and Reconstructive Surgery offers a first prize of $300 and a second prize of $200, together with a Certificate of Merit, for essays on some original unpublished subject in plastic surgery.

Competition is limited to residents in plastic surgery of recognized hospitals and to plastic surgeons who have been in such specific practice for not more than five years.

The first prize essay will appear on the program of the forthcoming annual meeting of the American Society of Plastic and Reconstructive Surgery, to be held in Mexico City, November 27–29, 1950.

Complete information may be received from the Secretary, Dr. Clarence R. Straatsma, 66 East 79th Street, New York, N. Y. Essays must be in his office before August 15, 1950.

A competitive examination for appointment of **Medical Officers in the Regular Corps of the United States Public Health Service** will be held on October 9, 10 and 11, 1950. Examinations will be held at a number of points throughout the United States, located as centrally as possible in relation to the homes of candidates. Applications must be received no later than September 11, 1950. Application forms may be obtained by writing to the Surgeon General, USPHS, Federal Security Agency, Washington 25, D.C., Attention: Division of Commissioned Officers.

IMPORTANT NOTICE RE HOSPITALIZATION

If a sufficient number of members, especially among those newly elected, are interested and eligible, they may apply for the protection offered by GROUP HOSPITALIZATION, INC. through the Doctors Group, which will be open to new subscribers in August 1950.

According to new GHI regulations, a minimum of 25 per cent of our members who are not now enrolled must indicate a desire for hospital coverage before any subscriptions can be forwarded to GROUP HOSPITALIZATION, INC. for processing.

Physicians who are interested in enrolling should advise the Executive Offices of the Society immediately. The telephone number is District 3111.

Members of the **American Urological Association** concluded a successful four-day meeting at the Hotel Statler, Washington, on June 1, with a total attendance of about 1,500 physicians, most of them specialists in the field of genitourinary surgery. Dr. William P. Herbst was Chairman of the Committee on Arrangements for the meeting; he was assisted by Drs. Charles P. Howze, Horatio N. Dorman, Ralph M. LeComte, and Colonel James C. Kimbrough, and by many other Washington physicians who were members of local committees.

Dr. Thomas D. Moore, of Memphis, Tenn., was installed as President. The new President-elect is Dr. Elmer Hess of Erie, Penna. Dr. Charles H. deT. Shivers, of Atlantic City, N. J., continues as Secretary of the Association.

Among those elected to active membership in the Association was Dr. Clifford E. Bagley.

The Section on Gastroenterology has held several meetings during the winter and spring months. The late Dr. Henry R. Schreiber was host to the Section, January 9. At that meeting Dr. Irving Brick of Georgetown University School of Medicine presented a paper on "The Clinical Value of Needle Liver Biopsy."

On March 13 the Section met at the home of Dr. Edward W. Nicklas. "X-ray Problems in Intestinal Diagnosis" was discussed by Dr. Peter Comanduras.

The last meeting was held on May 8 at the home of Dr. Wyrth Post Baker. Comdr. J. M. Amberson, of the U. S. Naval Medical Corps, gave an illustrated description of his safari through Africa studying the various types of infections and methods of transmission.

The following officers were elected at the May meeting:

Dr. Baker, *Chairman;* Dr. A. F. Kreglow, *Vice Chairman;* Dr. Nicklas, *Secretary-Treasurer.*

At the meeting of the **Section on Otolaryngology,** May 16, at the Army-Navy Town Club, **Dr. Walter Wells** was honored for his many years of service to this special field of medicine. Dr. Don Knowlton, retiring Chairman of the Section, presented Dr. Wells with a gift, to which he responded by giving some interesting personal reminiscences of the beginnings of otolaryngology in Washington. Dr. Francis L. Lederer, of the University of Illinois, was the guest speaker.

The following new officers were elected at the business session:

Dr. Victor R. Alfaro, *Chairman;* Dr. Irvin Feldman, *Vice Chairman;* Dr. T. Frasier Williams, *Secretary;* Dr. John Louzan, *Treasurer.*

Alumni of the Medical College of Virginia gathered in Richmond, Va., April 27, to honor **Dr. William Thomas Sanger** on his twenty-fifth anniversary as President of the College. Tributes were paid Dr. Sanger by the following alumni and other distinguished guests: The Honorable John Stewart Battle, Governor of the State of Virginia; The Honorable W. Stirling King, Mayor of the City of Richmond; Dr. George M. Modlin, President of the University of Richmond; Dr. L. J. Roper, Commissioner for the Virginia State Health Department; Dr. Harry Lee Claud, Washington, Past President of the Alumni Association; Mr. Wyndham B. Blanton, Jr., President of the Student Body Association; and Dr. Harvey B. Haag, Dean of the School of Medicine.

At the last meeting of the **Washington Orthopedic Club,** May 18, in the Medical Society's building, the following officers were elected:

Dr. William J. Tobin, *President;* Dr. T. Wiley Hodges, *Vice President;* Dr. Austin B. Rohrbaugh, Jr., *Secretary-Treasurer.*

Dr. Custis Lee Hall addressed the members, sharing with them some of his experiences and knowledge gained while recently in Europe attending the meeting of the International Orthopedic Association.

The Medical Arts Society, at its business meeting, April 18, 1950, elected the following officers for 1950–51:

Dr. Emil J. C. Hildenbrand, *President;* Dr. Thomas Bradley, *Vice President;* Dr. Henry D. Ecker, *Secretary-Treasurer.*

Drs. Victor R. Alfaro and Theodore Winship were elected members of the Executive Committee.

Newly elected officers of the **Washington Medical Chapter, Reserve Officers' Association,** are:

Lt. Colonel Francis Threadgill (Medical Corps), *President;* Lt. Commander Joseph Whitebread (Dental Corps), *Vice President;* Captain Anne Bacheson (Army Nurse Corps), *Secretary.*

The Section on Anesthesiology held a joint meeting with the Potomac Society of Anesthesiologists and elected new officers, May 31. The meeting was held in the Medical Society's building. Dr. Donald Stubbs, retiring Chairman of the Section, gave the Chairman's address on "What's Right and Wrong with Anesthesia." Discussion was led by Dr. Joseph B. Bogan.

All deaths occurring in operating rooms or within 48 hours after surgery in all the hospitals within the District of Columbia or nearby suburbs are reported in detail to the Section's Anesthesia Study Committee. Names of patients, hospitals, surgeons and anesthesiologists are meticulously withheld. The purpose of this committee is to establish objective and tested clinical criteria for the correct management of anesthesia. The House of Delegates of the American Medical Association passed a resolution in 1944 urging all county and state medical societies, as well as other medical societies, to set up such study commissions. Dr. Weston Bruner is Chairman of this committee. Assisting him are Drs. William E. Bageant, Seymour Alpert, Frank J. Grabill and J. Phelps Hand, Jr.

The following officers will serve the Section during 1950–51:

Dr. Bageant, *Chairman;* Dr. John J. Mattare, *Vice Chairman;* Dr. Joel B. Hoberman, *Secretary-Treasurer;* Drs. Bogan and Charles S. Coakley, *members of the Executive Committee.*

The Section on Pathology and Laboratory Medicine held election of officers on May 24 in the Medical Society's Library. Dr. Oscar B. Hunter was reëlected Chairman of the Section. Other officers are:

Dr. Thomas M. Peery, *Vice Chairman;* Dr. Kenneth L. McCoy, *Secretary-Treasurer.*

The George Washington University Medical Society elected officers at its annual meeting, May 27. They are:

Dr. John H. Lyons, *President-elect;* Dr. Herman S. Hoffman, *First Vice President;* Dr. Elizabeth Parker, *Second Vice President;* Dr. Oscar B. Hunter, *Secretary-Treasurer;* Dr. Herbert S. Gates, *Councillor for five years.*

Dr. H. J. Russell McNitt assumed the office of President of the Society on July 1.

At the annual meeting of the **Health Section of the United Community Services,** May 10, Mrs. Theodore O. Wedel was elected Chairman of the Section, succeeding Dr. Winfred Overholser, Superintendent of St. Elizabeths Hospital. Mrs. Wedel is a member of the District Board of Public Welfare. Mr. Edward K. Funkhouser, Executive Secretary of the District Tuberculosis Association, was elected Vice Chairman. Dr. William L. Granatir, Director of the Washington Institute of Mental Hygiene, and Theodore Wiprud, Secretary of the District Medical Society, were elected delegates to the UCS Board of Trustees.

Drs. Overholser, John W. Cronin, and Charles S. Wise were among those reëlected delegates-at-large to the Section. Dr. Overholser was also named to the Nominating Committee.

A special subcommittee was appointed to make a detailed survey of nursing homes in Washington to see how they fit into the problem of caring for persons suffering from chronic diseases. This study will be headed by Dr. Paul B. Cornely, Medical Director of Freedmen's Hospital.

Dr. Donald Stubbs assumed the office of President of the **Potomac Society of Anesthesiologists** on July 1. This Society was founded on March 19, 1948, and comprises in its membership the majority of physicians practicing anesthesiology in the District of Columbia, Maryland, Virginia and West Virginia. Its objective is to advance the science and art of anesthesiology as well as to stimulate interest and promote progress in the specialty. The Society has over 100 members.

The Section on Radiology met in the Library of the District Medical Society on May 18. Case reports were presented by Dr. Alan Zellis of Sibley Hospital and Dr. John Long of Casualty. At the business session the following officers were elected:

Dr. Karl C. Corley, *Chairman;* Dr. Eugene J. McDonald, *Vice Chairman;* Dr. William L. Clopton, *Secretary-Treasurer.*

The 53rd Annual Banquet of the Washington Medical and Surgical Society was held at the Hotel 2400, May 25. The guest speaker was Assistant Attorney General H. Graham Morison.

Highlight of this meeting each year is the awarding of the **Frank E. Gibson Award,** which is given for the most outstanding scientific paper presented to the Society during the year. The essayist selected for this year's award was **Dr. William E. Bageant,** anesthesiologist; his paper was entitled, "Treatment of Anuria." Dr. Bageant is Clinical Instructor in Anesthesiology at George Washington University School of Medicine and is associated with Garfield, Children's and Episcopal Hospitals. The award which honors Dr. Frank E. Gibson, Society Treasurer since 1904, consists of a citation and a sum of money.

Presiding at the banquet was Dr. Jerry K. Cromer, President of the Society. In charge of the arrangements for the dinner were Drs. Ralph R. Stevenson, David M. Nolan and William D. Claudy.

The Kober Medical Society held its annual outing on May 18 at the Congressional Country Club.

At the annual meeting of **Hospital Service Agency,** May 23, the encumbent Board of Trustees was unanimously reëlected. In addition, thirteen new members were elected, as follows: Drs. Katherine Symmonds, Alfred N. Palmer, Nelson Podolnick, Joseph M. Kline and George J. Hageage; Messrs. Edmund D. Campbell, Randall Hicks, Art Phelan, Lawrence Proctor, Charles E. Smoot, Donald Buckingham and Thomas Eagan; and Mrs. Albert Miller.

The Board of Trustees of HSA held election of officers on June 6. They are:

Dr. Thistle M. McKee, *President;* Dr. Oscar B. Hunter, *First Vice President;* The Reverend Paul A. McNally, S. J., *Second Vice President;* Mr. Willard C. Smith, *Secretary;* Mr. Frank A. Birgfeld, *Treasurer;* and Mr. John S. Gorrell, *Assistant Treasurer.*

Mr. Donald Richberg, prominent Washington attorney, addressed the **Clinical Club of Washington** at its annual dinner, May 16. His address entitled, "Pink Promises for Pale People," is published in this issue of the MEDICAL ANNALS.

The Alexandria City Medical Society installed new officers at its meeting, May 18. They are:

Dr. Wallace E. Baker, *President;* Dr. Martin Delaney, *Vice President;* Dr. Jerome Baum, *Secretary-Treasurer.*

New officers of **Physician-Veterans of World War II,** elected May 24, are:

Dr. Eugene J. McDonald, *President;* Dr. Charles P. Ryland, *Vice President;* Dr. William B. Walsh, *Secretary-Treasurer.*

Dr. Karl C. Corley, General Chairman for the 21st ANNUAL SCIENTIFIC ASSEMBLY, has appointed the following physicians to head up committes for the Assembly:

Program: Dr. Thomas McP. Brown
Attendance: Dr. Joseph J. Wallace
Scientific Exhibit: Dr. William J. Tobin
Public Health Exhibit: Dr. Henry D. Ecker
Radio, Television and Motion Pictures: Dr. Robert S. Smith
Special Exhibit: Dr. R. Bretney Miller
Social Affairs: Dr. Richard H. Todd

These appointments have received the approval of the Executive Board.

Some sixty friends and colleagues of **Dr. Harry F. Dowling** gathered at the Kennedy Warren, May 18, to honor him at a testimonial dinner prior to his departure for Chicago, Illinois, to assume his new duties as Professor of Preventive Medicine at the University of Illinois.

Dr. Clayton B. Ethridge, who was associated with Dr. Dowling at Gallinger Municipal Hospital, presided.

HARRY F. DOWLING, M. D.

Tributes described as "long overdue" were paid Dr. Dowling for the significant contribution he has made to the advancement of medicine in Washington through its medical schools, hospitals, medical societies, and particularly through Gallinger Municipal Hospital. Those who spoke for these various organizations were:

Dr. Benjamin Manchester, Associate in Medicine of George Washington University School of Medicine, representing the attending staff at Gallinger.

Dr. Elizabeth Hill, Chief Resident, George Washington Medical Service at Gallinger, representing the house staff of Gallinger Hospital.

Dr. Carl Dauer, Chief of the Infectious Disease Division, District of Columbia Health Department, representing the District Health Department.

Dr. Frank D. Costenbader, President of Medical Service of the District of Columbia, representing the Medical Society of the District of Columbia and Medical Service. Dr. Costenbader also read a letter from Theodore Wiprud, Secretary of the Society, who was unable to attend.

Dr. Thomas McPherson Brown, Professor of Medicine of George Washington University School of Medicine, representing George Washington University.

Dr. Hugh H. Hussey, Associate Professor of Medicine, Georgetown University School of Medicine, representing Georgetown University.

Following these tributes Dr. Richard L. Whelton, Medical Superintendent of Gallinger, presented Dr. Dowling with a handsome desk set suitably engraved. Dr. Dowling responded graciously and appreciatively. Speaking on the future of medicine, he did not limit himself to science but touched on social advances as well.

Dr. Whelton and Dr. William Nessell, Night Admitting Officer at Gallinger, made arrangements for the dinner.

Dr. Dowling was the recipient of still another honor on the eve of his departure from Washington. He was one of three George Washington University graduates to receive the Alumni Association Achievement Award at commencement exercises, May 31. Dr. Dowling was honored specifically for his study of infectious diseases while Clinical Professor of Medicine and Chief of George Washington Medical Division of Gallinger Hospital.

The Medical Society of Saint Elizabeths Hospital held its Thirteenth Annual Meeting, June 2 and 3, at Hitchcock Hall. Dr. Morris Kleinerman, President of the Society, presided at the opening session, June 2. Papers were presented during the morning by Drs. Thomas Harris, Addison M. Duval, James P. Murphy, William H. Young, Jr., and Elliott R. Reiner. The afternoon was devoted to a Symposium on Results of Treatment in Psychiatry, with Dr. Francis J. Tartaglino presiding. Participants were Drs. Isadore Rodis, Jay L. Hoffman, Alfred H. Stanton, Dexter Bullard and Mr. Morris S. Schwartz.

In a Symposium on Alcoholism at the morning session, June 3, papers were presented by Drs. Lewis B. Hill, Manson B. Pettit and Benjamin Weininger. A business meeting and election of officers was held just before the meeting adjourned for lunch.

A panel discussion occupied the afternoon session, the subject of which was "The Community and the Sexual Deviate." Presiding was Dr. Bernard A. Cruvant. Participants were Mr. Donald Clemmer, Mr. George Morris Fay, Mr. Edward J. Flynn, Dr. Benjamin Karpman, Lt. John B. Layton, Captains Rhoda Milliken and Mark Raspberry, and Congressman A. L. Miller.

Closing remarks were made by Dr. Samuel A. Silk, Assistant Superintendent of the Hospital.

The two-day meeting was concluded with a dinner dance in the Sapphire Room of the Mayflower Hotel. Dr. Warren S. McCulloch, of the University of Illinois, was the guest speaker; his subject, "Cybernetics of the Nervous System."

Officers elected to serve during the coming year are:

Dr. Cruvant, *President;* Dr. Otto Will, *Vice President;* Dr. Norman Taub, *Secretary-Treasurer.*

The Board of Directors of the Washington Heart Association elected new officers at its annual meeting in the District Medical Society's building, May 15. Dr. Bernard J. Walsh, Chief of the Cardiac Clinic of Children's Hospital and of Gallinger Hospital, is the new President, succeeding Dr. J. Ross Veal. Other officers are: Mr. Davis Weir, Vice President; Dr. John W. Latimer, Secretary; and Mr. Frank Parsons, Jr., Treasurer.

New members elected to the Board were: Mr. John M. Howard, Mrs. Bleike Reed, Dr. C. J. Van Slyke, Mr. Joseph Jones, and Dr. Hill Carter. Reelected for another term were: Drs. Veal, Edgar W. Davis, Frank S. Horvath, Hugh H. Hussey, Mr. Weir and Mrs. Robert Moran.

Mr. Howard, General Chairman of the 1950 Heart Campaign, received a gold heart "key" from the Board of Directors in appreciation for his services during the campaign. The presentation was made by Dr. Clayton B. Ethridge, retiring Vice President.

The Scientific Council of the Washington Heart Association presented a special program, May 11, by a number of essayists selected by the program committee from a number who had submitted in advance abstracts of proposed presentations. Dr.

Hugh H. Hussey, Chairman of the Council, presided at the meeting. The program follows:

"Effect of 10 per cent CO_2 on the Cardiac Response to Electrical Stimulation of the Vagus Nerve," Dr. Gilbert S. Campbell, Department of Basic Science, Army Medical Department Research and Graduate School

"Blood Viscosity in Vascular Insufficiency States and Thromboembolism," Dr. John N. Shadid, Emergency Hospital

"Taussig-Bing Syndrome; Report of Two Cases," Dr. Bernard J. Walsh, Associate Professor of Clinical Medicine, Georgetown University School of Medicine

"Sympathectomy for Hypertension; Results in 65 Cases," Dr. Emil J. C. Hildenbrand, Associate Professor of Surgery, Georgetown University School of Medicine

"Renal and Cardiac Effects of Lithium Salts," Drs. J. L. Radomski, H. N. Fuyat, A. A. Nelson and P. K. Smith, Food and Drug Administration and George Washington University School of Medicine

"Pulmonary Studies in Cardiac Asthma," Drs. Hyman J. Rubitsky and John J. Curry, Gallinger Hospital and Georgetown University School of Medicine

Apologies of the Observer ("In and Out of Focus") go to the Editorial Board of the *Southern Medical Journal.* In the March issue of the ANNALS, pages 157 and 158, is reprinted a large portion of an address by Dr. Steve P. Kenyon, of Dawson, Georgia, Chairman of the SMA's Section on General Practice. No mention was made of the fact that this address was originally printed in the *Southern Medical Journal* for January 1950, pages 12–16, under the title, "The Doctor's Responsibility to His Patient," and a belated effort to rectify this inadvertent omission is made herewith.

Dr. William Earl Clark, retiring Chairman of the Executive Board, was presented with an inscribed silver box as a personal gift from members of the Board following their meeting, May 22. Dr. William P. Herbst presented the gift on behalf of the Board.

Dr. Montgomery Blair, Jr., Medical Director of Children's Hospital, has been appointed Director of the Regional Blood Center of the American Red Cross, a newly created post. Dr. Blair has been serving as Chairman of the Medical Advisory Committee of the Washington Regional Blood Center, which covers a territory including the District and 17 counties in Maryland, Virginia and West Virginia.

Dr. John A. Reed, Secretary of the American Diabetes Association, has been appointed Chairman of the national Committee on Diabetes Detection for the year 1950–51. Dr. Reed will head the 1950 Diabetes Detection Drive, which will open with Diabetes Week, November 12–18, and continue the year round.

Serving with Dr. Reed will be Dr. Charles H. Best, of Toronto, Canada, co-discoverer of insulin; Dr. Frank N. Allan, of the Lahey Clinic, Boston; Dr. Howard F. Root, of the Joslin Clinic, Boston; and twenty-two other nationally known physicians representing every section of the country.

Dr. Reed is Assistant Clinical Professor of Medicine at George Washington University School of Medicine and attending physician at George Washington University Hospital. He is Chairman of the Board of Police and Fire Surgeons of the District of Columbia. He is consultant in diabetes to the U. S. Civil Service Commission and to Doctors Hospital.

Dr. Mark H. Lepper, formerly Associate in Medicine at George Washington University School of Medicine, has accepted the appointment of Associate Professor of Preventive Medicine at the University of Illinois in Chicago. This is the new Department which Dr. Harry F. Dowling is heading.

Dr. Lepper assisted Dr. Dowling at Gallinger Municipal Hospital on research work in the therapies of infectious diseases and toxic reactions to drugs; he did original research on inhibition of antigen antibody reactions.

Dr. Lepper is a graduate of George Washington University School of Medicine, having received his A.B. degree in 1937 and his medical degree in 1941. He served for two years in the U. S. Army during World War II as Captain in the Medical Corps, and was discharged with the rank of Major.

The Board of Honorary Civilian Consultants to the Medical Department of the Navy met on June 9 at the Bureau of Medicine and Surgery of the Navy Department, Washington, D.C.

The Consultants were appointed by the Secretary of the Navy to act as an Advisory Board to the Surgeon General to assist in formulating future policies for the Medical Department of the Navy.

The Board includes many of the Nation's outstanding doctors; the presidents and presidents-elect of the American Medical and the American Dental Associations; the Secretary of the American Pharmaceutical Association; and leading educators in the nursing profession. Two members of the District Medical Society are members of the Board: The Reverend Paul A. McNally, S.J., Dean of Georgetown University School of Medicine, and Dr. W. Calhoun Stirling, Washington urologist.

Dr. Wallace M. Yater delivered the Third Annual Lecture sponsored by the Alumni Association of New York Medical College at the Flower-Fifth Avenue Hospital in New York, June 6.

Dr. R. Lomax Wells, Medical Director of the Chesapeake and Potomac Telephone Company, **and Dr. Emil J. C. Hildenbrand,** Medical Director of the Potomac Electric Power Company, attended the 35th Annual Meeting of the American Association of Industrial Physicians and Surgeons, which was held in Chicago, April 24 to April 28, 1950.

Dr. Samuel M. Dodek of the Department of Obstetrics and Gynecology of the George Washington University School of Medicine, received Honorable Mention for his scientific exhibit at the International and Fourth American Congress on Obstetrics and Gynecology, which met in New York, May 15–19. His exhibit was entitled, "Original Tocographic Studies upon the Parturient Human Uterus."

The Seventh Annual Meeting of the American Geriatrics Society was held at the Hotel Commodore, New York, June 1–3, 1950. **Dr. F. Daniel Suttenfield** delivered a paper before this meeting on "Gout: Early Clinical Diagnosis and Management." He also presided at one of the afternoon sessions.

Two District Medical Society members have served on the committees of this organization during the program year, 1949–50. Dr. Suttenfield has been a member of the Membership Committee and **Dr. Edward J. Stieglitz,** a member of the Committee on Policy and the Publication Committee.

BOOK REVIEWS

Urological Surgery, 2nd ed. AUSTIN INGRAM DODSON, M.D., F.A.C.S., Richmond, Va., Professor of Urology, Medical College of Virginia; Urologist to Crippled Children's Hospital; Urologist to St. Elizabeths Hospital; Urologist to St. Luke's Hospital and McGuire Clinic. Price, $13.50. Pp. 855, with 645 illustrations. St. Louis: Mosby, 1950.

The first edition of this work is one of the "worn-out" volumes found on the reference or desk set of urologists and surgeons; that is to say, the titles on the cover are faded, the binding is worn, the leaves are loosened, and the back is broken; rebinding seems to be in order. All of this is evidence of frequent consultation and much use. The second edition exhibits evidences of the same care and thoroughness which characterized the first and made it a useful and popular book.

Several collaborators have again contributed to this edition and each has added his bit to make it a well-rounded, complete work. The opinions advanced in any field or particular are conservative and the context is thorough without being prolix.

The operating surgeon will doubtless use the sections on operative surgery most. He may well profit, however, by directing his attention to some of the other sections, notably to that on Acid Base Balance and Fluid Administration. This section has been thoroughly revised and brought up to—perhaps in advance of—date. While some of the details set forth may be questioned, the over-all picture of the treatment advised for the patient with acute renal failure is accurate and the use of the formulae advanced cannot but be helpful if they are followed closely. It gives a much more serviceable method of therapy than the more or less haphazard and somewhat fumbling efforts that have been made in the administration of whole blood, blood derivatives, fluids and electrolytes in the past. Even a skilled internist may profit by a study of this chapter.

The drawings of the operations illustrated are well executed and adequate and the descriptions in the text are clear and concise but without lack of detail. They form a remarkably accurate guide to operative procedures.

All of the figures in the section on Diagnosig an Urography are illustrative and clear. Some 19 figures of X-ray films have been added to this edition to amplify the scope of this chapter.

An escape from conventional editorial practice in the capitalization of titles of articles from journals referred to in the bibliography is noted. This is a variation of minor importance since all of the references checked by the reviewer have been found to be correct as to volume, page and year—details which, as anyone who has done any bibliographic research can testify, are the important ones in any reference.

All in all the volume is one that can be highly recommended for anyone who does operative work on the organs of the genitourinary tract.

R. M. LeComte, M.D.

Introduction to Neuropathology. S. P. Hicks, M.D., and S. Warren, M.D. Price, $10.00. Pp. 494, with 289 illustrations. New York: McGraw-Hill, 1950.

This is a handsomely printed, beautifully illustrated volume that covers the various phases of disease of the nervous system in a comprehensive manner. As in all texts upon the subject there is marked variation from one chapter to another, displaying the authors' main interests. Here the tumor situation is dealt with most satisfactorily, with trauma next. The work is written in a somewhat diffuse, vague and repetitive fashion when it strays from the consideration of the facts of pathologic anatomy. In a volume of this kind one naturally expects a straightforward description of findings at necropsy or under the microscope. The authors' erudition finds expression in too many terms derived from chemistry, clinical neurology and psychiatry, and endocrinology that could well have been replaced by concentration upon the subject under discussion. Too many times the words "obscure, unknown, poorly understood" and so on are employed, so that the reader is apt to be confused rather than enlightened. On the other hand, the illustrations are a pleasure to look at, so clearly reproduced that lengthy descriptions are unnecessary.

Walter Freeman, M.D.

Nutrition and Diet in Health and Disease, 5th ed. James S. McLester, M.D., Professor of Medicine, University of Alabama, Birmingham. Price, $9.00. Pp. 800. Philadelphia: Saunders, 1949.

The last War stimulated a tremendous volume of research and significant advances in the science of nutrition. During the past several years there has been a better understanding of the deficiency diseases and the functions of vitamins. Much has also been learned of the dietary factors in the macrocytic anemias, in cirrhosis of the liver, and in surgery. These newer data have been included in the fifth edition of this standard text, which has been well known since it was first published in 1927. The currently accepted concepts of the low-salt diet for congestive heart failure, and the sodium-free diet for hypertension have been incorporated in this edition. An entirely new chapter, Feeding of Surgical Patients, by Dr. Charles C. Land has been added.

The appendix is interesting and contains such data as special methods of feeding, the storing and processing of foods, methods of cooking, as well as many useful food tables.

This volume should prove valuable as a reference text.

S. K.

Primer of Allergy. Warren T. Vaughan, M.S., M.D., Richmond, Va., with illustrations by John P. Tillery, M.D. Third Edition, revised by J. Harvey Black, M.D., Dallas, Texas. Price, $3.50. Pp. 175, illustrated. St. Louis: Mosby, 1950.

This is the third edition of a very popular book which was first published in 1939. It is primarily the same book, including illustrations by John P. Tillery and cartoons by H. T. Webster, brought up to date by Dr. Black, as Dr. Vaughan died before the work was completed.

It was written expressly for the patient suffering from an allergy and the general practitioner with a limited experience in this field. It is a companion to the Practice of Allergy, which is addressed to the doctor primarily interested in allergic conditions.

The problems of an allergic individual are presented in an interesting and intelligent manner to those not versed in medical terminology. It explains to the patient what he has and why (as far as we know); also the methods of managing his condition. Questions which are normally asked by the patient are answered simply and satisfactorily at the end of most of the chapters.

Instructions to the patients with various allergic conditions are given in minute detail at the end of the book.

This excellently written book should be read by every allergic individual, as it will enable him to more fully coöperate with his doctor in controlling his illness.

Ellis April, M.D.

The Cytologic Diagnosis of Cancer, by the staff of Vincent Memorial Laboratory of the Vincent Memorial Hospital. A Gynecologic Service Affliated with the Massachusetts General Hospital, Boston, Mass. The Department of Gynecology, Harvard Medical School. Published under the sponsorship of the American Cancer Society. Price, $6.50. Pp. 229, with 153 figures. Philadelphia: Saunders, 1950.

The cytologic diagnosis of cancer largely falls into the same type of endeavor as the diagnosis of infections, anemias and leukemias from the study of blood smears. Drs. Joe V. Meigs and Maurice Fremont-Smith have approached the cancer cytology problem in much the same light as other authors in the production of manuals and atlases in the training of students of hematology. Their book, though concise, is an atlas as well as a text in that there are ample photomicrographs to illustrate the various phases of normal and neoplastic cells. They have first given an introduction to the subject by a discussion of normal cells and variations in them which create confusion in the mind of the untrained professional or technical worker. After a thorough coverage of desquamated cells from the female genital tract, the book also includes sections on exfoliative cells from other body cavities and orifices. Pleural and peritoneal fluids, bronchial washings and sputum, gastric secretions, and urines and prostatic secretions are all included in this work.

Mrs. Ruth M. Graham, to whom great credit should be given for the actual production of this book, has followed very closely cytologic changes produced by irradiation, primarily in cancer of the cervix. The text includes a chapter on this important phase of cytologic variations.

With the publication of this book the practicing pathologist as well as the uninitiated now have available to them a dependable cancer cytology reference as a basis for their cytologic work which is complete and not simply limited to the gynecologic phase of this work.

MANNING W. ALDEN, M.D.

LELAND OSSIAN HOWARD, B.S., M.S., Ph.D., M.D., LL.D.

(1857–1950)

Dr. Leland O. Howard, world-wide authority on insects, died, May 1, 1950, at his home in Bronxville, New York, aged 92. He was an Honorary member of the District Medical Society.

Dr. Howard was assistant entomologist in the Bureau of Entomology, U. S. Department of Agriculture, from 1878 to 1894, and served as Chief of the Bureau from 1894 to 1927. In 1927 he relinquished the directorship but continued as chief entomologist of the Department of Agriculture until 1931, when he retired from Government service. After his retirement he went to Paris to continue his studies, remarking that he did not regard his retirement as the end but only the turning point in his life work.

Dr. Howard was born in Rockford, Illinois, June 11, 1857. He was a graduate of Cornell University (B.S., 1877; M.S., 1883). For his outstanding scientific research he was honored by many educational institutions. He was awarded the degree of Doctor of Philosophy from Georgetown University in 1896 and a degree in medicine from George Washington University in 1911; the degree of Doctor of Laws was conferred upon him by the University of Pittsburgh in 1911, and by the University of California in 1929. He received the degree of Doctor of Science from the University of Toronto in 1920 and from Rutgers University in 1930.

As early as 1888, Dr. Howard achieved international renown because of his notable studies of parasitic hymenoptera. He was famous also for his studies of mosquitoes, which began in 1892, several years before the discovery that mosquitoes transmit malaria, yellow fever, and other diseases. The common housefly attracted his attention in the field of medical entomology. His book, "The Housefly—Disease Carrier," published in 1911, is considered largely responsible for the world crusade against houseflies.

The eradication of the boll weevil from Southern cotton country, the gypsy moth from New England, the corn borer from the Central States, the Japanese beetle from the Atlantic Coast, and other insect pests began while Dr. Howard was Chief of the Bureau of Entomology. The biological method of insect control, which set one insect to destroy another, was one of his specialties and is said to be practically the only method used in Hawaii for crop protection; it is widely used among citrus fruit growers in California, Florida and Texas. In his book, "The Insect Menace," published in 1931, Dr. Howard focused attention on the need for ever-vigilant measures and a sufficient force of trained entomologists to maintain the continual large-scale control operations necessitated by change in agricultural practices.

In 1931 he was awarded the Second Capper Gold Medal and $5,000 for distinguished service to American agriculture. He was decorated Chevalier Legion of Honor in 1925, Officier, 1929, and Officier Order of Agricultural Merit (both of France), 1925.

While Chief of the Bureau of Entomology, he was also Curator of Insects to the U. S. National Museum from 1895 and consulting entomologist to the U. S. Public Health Service from 1904.

On May 27, 1937, entomologists of the United States Department of Agriculture and the Entomological Society of Washington and members of the Insecticide Society of Washington gathered to honor him on his eightieth birthday. The meeting was held at the National Research Center at the Beltsville Experimental Farm.

Dr. Howard was an Associate member of the District Medical Society from 1914 to 1930, when he resigned from many of the scientific organizations to which he belonged prior to his retirement. He was subsequently proposed for Honorary membership in the Society and unanimously elected to such membership on January 7, 1931.

Among the scientific organizations of which he was a member and Past President were the American Association for the Advancement of Science (also Permanent Secretary 1898–1920), the Association of Economic Entomologists, the Biological Society of Washington, the Washington Academy of Sciences, and the Cosmos Club. "Who's Who in America" lists many other American scientific organizations of which he was a member; he was an honorary member of fifteen or more foreign societies.

He was married to Marie T. Clifton in 1886. Three daughters were born to them; Miss Lucy T. Howard, Mrs. Edward De Mille Payne, and Miss Jane M. Howard.

STEWART MAXWELL GRAYSON, M.D.

(1888–1950)

Dr. Stewart M. Grayson, an Active member of the District Medical Society, died, May 31, 1950 at Mount Alto Hospital. Dr. Grayson, whose health failed rapidly during the past three years, lived at 5701 Kansas Avenue, N. W.

Dr. Grayson was born in Wytheville, Virginia, January 7, 1888, but spent most of his life in Washington. He was educated in the District schools, graduating from Emerson Institute. After receiving his degree in medicine from George Washington University in 1916 he interned at Children's Hospital for a year.

Following the entrance of the United States into World War I, Dr. Grayson enlisted in the Army Medical Corps in July 1917 and was commissioned First Lieutenant. He served in all the major campaigns, and later was awarded the Silver Star and the Purple Heart. He returned to civilian life in 1919 with the rank of Captain.

He resumed his internship at that time, and from 1919 to 1921 he interned first at George Washington University Hospital and later at Garfield Memorial Hospital. Between these tours of duty he spent a few months as chief resident of St. Elizabeth's Hospital in Youngstown, Ohio. In August 1921 he returned to the latter hospital to become house surgeon. He began private practice in the District of Columbia in the fall of 1922. For many years he was connected with George Washington University School of Medicine and Hospital as teacher of surgery and staff surgeon.

Dr. Grayson returned to active duty with the Army Medical Corps in January, 1941, but because of ill health he was honorably discharged in 1942 with the rank of Lieutenant Colonel.

Dr. Grayson was an Active member of the Medical Society of the District of Columbia from 1923 to 1932 and was reëlected to Active membership in 1938.

Surviving are his wife, Mrs. Anna R. Grayson, and several brothers and sisters.

GEORGE HENRY HEITMULLER, A.B., M.D.

(1869–1950)

Dr. George H. Heitmuller, Washington ophthalmologist for many years, died, May 23, 1950, at his home, 1333 N Street, N.W. Dr. Heitmuller was a pioneer medical inspector in the District schools, having organized the first eye clinic for students of the public schools.

Dr. Heitmuller was born in Arkenberg, Germany, November 15, 1869. He was educated in the United States, receiving his A.B. degree from Johns Hopkins University in 1891 and his medical degree from the University of Pennsylvania in 1894.

In 1896 he was clinical assistant at the Royal London Ophthalmic Hospital and later practiced briefly in Cleveland. He was licensed to practice in the District of Columbia in 1897.

He retired as a public school medical inspector in 1939 after more than 36 years' service. Much of his long career was devoted to treating students for faulty eyesight. He volunteered his services to set up an eye clinic, which was first located at the Jefferson School and later at the Henry Elementary.

He was elected to membership in the Medical Association of the District of Columbia in 1904 and in the Medical Society in 1906. He continued his membership in the Society until 1940.

His wife, Mrs. George H. Heitmuller, survives him together with a sister, Miss Pauline Heitmuller, of Hollywood, California.

Child Psychiatry—Odenwald

(*Continued from page 370*)

satisfaction of these needs. When the psychiatrist succeeds in getting the parents and the teacher to recognize the etiologic process, maladjustment will be on the way to a curative resolution.

Psychotherapy with children stresses the present without overlooking the past; it assumes that the main factor is present in every undertaking of the child. The child can grow with the help of the therapist, but he must do the growing. This new relationship allows the child to catch up on retarded growth. This relationship is a deep experience with the child, who sees that this new person stresses certain limits but does not become emotionally involved in any doings of the child. The child's expression in play therapy is only a minor part of it. What is of maximal importance is the relationship with the therapist. The child meets for the first time with an adult who will not domineer and will not be domineered, an adult who will accept him as he is and will not try to change him. The child grows, finding that he is an independent person with specific functions as such.

In conclusion, our present-day parents, perhaps because of the tense atmosphere of our modern civilization, are not manifesting parental competency in rearing and educating their children properly. The modern home is no longer as it should be, the child's first school. No physician will doubt that maladjusted children are a danger for the coming generation and may increase the number of the mentally ill. Child psychiatry with its own special approach to therapy with children, especially in the form of play therapy, is all-important for the rearing of a future responsible, stable and mature citizenry.

Congestive Splenomegaly—Hussey and Kiernan

(*Continued from page 379*)

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Cancer Control—Spire

(*Continued from page 382*)

with wide excision. It is never justifiable to remove for purely cosmetic reasons a pigmented nevus which exhibits no sign of active growth. If the patient insists on removal, surgery should be as radical as if active growth were present.

With the privilege of being a family physician goes hand in hand the tremendous responsibility of being one. Because of his intimate contact with the greatest number of patients his responsibility is most grave.

The morbidity and mortality rates in cancer today are most distressing. Rather than having a discouraging effect these figures should stimulate us to greater efforts to establish early diagnosis. There are no pathognomonic signs in early cancer. In cancer study suspicions are always justifiable, and the patient should always be thoroughly examined by roentgenoscopy, endoscopy, and biopsy or surgical exploration.

Georgetown Medical School Centennial

(*Continued from page 403*)

300 graduates who took and passed the 1950 examinations of the National Board of Medical Examiners. Heading the list, in first place nationally, was Bernard Peacock, of 1726 13th Street, S.E., who received a perfect score, 100 per cent, in surgery. The other high ranking Georgetown students were Joseph Adlestein, of Harrisburg, Pa.; Ben H. McConnell, Jr., of Denver, Colorado; and Joseph G. Rossi, of Hartford, Conn.

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TRENDS IN THE PRACTICE OF MEDICINE*

MAJOR GENERAL PAUL R. HAWLEY, M.C., U. S. A. (RET.)

Director, American College of Surgeons

IT IS, perhaps, the greatest regret of my life that, through circumstances beyond my control, I was forced away from the professional side of medicine some 18 years ago and never permitted to return to it. My first 16 years in the Army were spent in purely professional work. The Army gave me unusual opportunities to specialize in one field of work, and encouraged me to pursue it. Just as I began to feel that I had something to contribute in this field, I was snatched from it, overnight and without warning, and that was that.

However, there was one thing that the Army could not take from me. This is my love for the professional side of medicine and my great admiration for those who excel in it. The most cherished associations of my whole life are those with doctors. I have been fortunate far above the lot of many. It is given to few men to have had the wonderful associations with thousands of fine doctors which I enjoyed during the War years and those immediately following.

There has been some speculation about the reason for my leaving Blue Cross and Blue Shield and coming to the American College of Surgeons. I assure you that the reason was in nowise one of dissatisfaction with these two great voluntary nonprofit plans, nor any doubt in my mind of their continued growth and prosperity. There was never an unpleasant incident with anyone connected with these organizations. No one could have been treated with more consideration nor showered with more tokens of friendship and true affection. If you must know the reason, it was that I just became very homesick for doctors. I wanted to spend my last active days in close association with professional work even though it is too late to think about engaging in it myself.

It is curious that the surgeons turned to me, who has always had a distaste for surgery; and so my nonsurgical friends here tonight may enjoy the chuckle I indulge in when I tease my associates at the College of Surgeons about having to come to the College of Physicians for their new Director.

Since I am not supposed to talk to you about professional trends, I shall discuss briefly some of the trends in the organization and in the economics of medical care which I believe to be the most significant of the day. I think we may well start at the very beginning and work toward the successful practice of medicine.

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* Delivered at the Annual Meeting of the Clinico-Pathological Society of Washington, D. C., April 18, 1950.

SELECTION OF MEDICAL STUDENTS

The first trend, which I consider significant, is in the selection of students in medical schools. For centuries, when there were more than enough schools of medicine to accommodate all applicants, there was no preliminary screening of prospective students. As substandard schools were driven from the field, applicants became more numerous than vacancies and some method of selection was necessary. At first, it was largely "first come, first served,"—always, however, modified by whatever influence could be exerted by alumni and other prominent people. When considerable premedical study began to be required, the medical schools started to scrutinize the academic record of candidates and select upon the basis of grades in their premedical work. This continues, perhaps, to be the factor to which the most weight is given.

Two or three years ago, I was invited to deliver the commencement address at one of our larger universities. In casting about for a topic, I sorted through the traditional patterns of platitudes usually eructed upon such occasions, and decided to give a loose rein to my limited flair for originality. I selected the theme that educational institutions have a grave responsibility in the selection of the hands into which they place such a tremendous potential for good or for evil as is an education.

I pointed out the obvious—that an education can be purchased as easily as groceries from a shelf. It does not have even the protection of the drugs which can be had only upon prescription. Universities seem to feel no concern over the possibility that the thing they sell may be used for evil purposes. As an extreme example, but by no means an impossible one, I took that rare art of opening safes, the combinations of which have been lost.

There is a very small group of highly skilled men in the United States who are experts in this technic. They are reliable and upright people who enjoy the confidence of bankers and of law enforcement agencies. However, if this vocation ever became sufficiently popular for colleges to offer courses in it—and a glance at a few college curricula will show that the colleges of today are offering courses, with credits toward degrees, for sillier subjects than this—if colleges offered courses in opening safes without knowledge of the combinations, any yegg or crook could enroll in them. If the standards of medical schools were applied, he would have to be a smart crook, but by no means are all crooks dumb.

Something like this has happened for years in medical education. In most instances, the physician who brings discredit upon our profession should never have been permitted to enroll in a medical school, or, at worst, he should have been plucked before graduation. Here is the only feasible place to banish undesirables from the medical profession.

It is, therefore, refreshing to learn that our medical schools are beginning to apply yardsticks other than ability to learn. While intelligence and industry in study must always be given great weight, one now hears deans of medical schools saying that often a C-student in premedicine makes a far better doctor than some A-students. Medical schools are searching for a screen which will catch the bad doctor before he gets far in his study. I wish I had the time to dwell upon the contributions already made by psychological research to the development of such a character and personality screen.

As you know, the medical profession, as well as the medical schools, has been under fire because of the method of selection of medical students. Many critics take the position that everyone who wants to study medicine has the right to study medicine. Such thinking is indicative either of a profound ignorance of the factors which make for good medical care, or an equally profound indifference to the welfare of the people. I believe firmly that medical schools have a grave responsibility in the selection of their students; and we may all applaud this new trend toward ethical and moral screening of applicants.

NEW TRENDS IN MEDICAL TEACHINGS

Next, there are trends in the teaching of medicine. Tradition is especially binding in academic circles, and it is difficult for educators to break with the past; but breaks are being made, even if they seem slow and painful. It is most natural that a teacher should conscientiously believe that his subject is the most important in the entire curriculum. Ordinarily every teacher wants more hours, not to speak of his horror at giving up any that he now has. However, the great advances in medicine in recent years give us a choice between only two courses of action: We must either lengthen the medical course or we must reallocate the time devoted to the various subjects. What with postgraduate medical training becoming almost the rule rather than the exception, most medical educators feel that lengthening the undergraduate course is out of the question.

Schools, therefore, are now making readjustments in their curricula. It has long seemed to me that an inordinate amount of time has been given to gross anatomy in undergraduate teaching. (This may be, of course, because I was never any shining light in this subject.) This is understandable as a hold-over from the days in medicine when gross anatomy was almost the only subject which could be taught factually. Much of the rest of the course was speculation and, even so, was very limited in scope. Until the days of the "gold rush" to the surgical specialties, the average medical graduate remembered only about five per cent of his gross anatomy once his State Board was behind him. In view of this, the many hours spent in the dissecting room did seem to be some waste of time.

Now, I am informed, through combination of anatomy with other preclinical subjects as well as by actual amputation, the hours in the dissecting room are being reduced. Of course, those who specialize later must have intensive training in the anatomy pertaining to their specialties, and this may be given as a part of the basic sciences in their postgraduate years.

When my grandfather graduated in medicine in 1844, it was an exceptionally well-trained doctor who had attended two courses of formal lectures of a few months each. When my father graduated in 1885, only a few of his class could afford the luxury of an internship. Most of them had exhausted their funds and had to begin at once to make a living. When I graduated in 1914, internships were, of course, the rule, although few states required one for licensure. The one-year residency I had was an unusual opportunity in my days. A few of the larger teaching hospitals did offer longer residencies, but such opportunities for postgraduate training were very scarce, and almost nonexistent away from the Atlantic Seaboard.

The trend toward postgraduate education, which started shortly after my graduation, became almost a panic after the specialty boards came into the picture. World War II, with its aristocracy of specialists and its subsequent GI educational benefits, created a demand for postgraduate training which greatly exceeded the capacity of the teaching hospitals. Out of dire necessity and, perhaps, with a motive not entirely unselfish, the Veterans Administration added liberally to the residency programs then in existence.

TRENDS CREATED BY INCREASED SPECIALIZATION

This great increase in specialization has created two trends which, until the present time, have not been very pronounced. Both, however, show promise of gaining impetus.

One is the acceptance of some measure of responsibility by the medical school for providing doctors to the smaller communities in its area. The University of Kansas seems to have taken the lead in this program and already has supplied many counties in that state with young general practitioners. This is a project of the greatest importance to the preservation of freedom in medicine, and one which should be emulated by many schools of medicine—especially those which are supported through taxation of the people in its area.

The other trend has just been started. Perhaps it is, as yet, more of a portent than a trend. It is a reaction, on the part of the general practitioner, to the rapidly increasing use of hospitals, especially in urban areas, for all sorts of illnesses which formerly were cared for in the home. This has had a considerable effect upon the general practice of medicine in those localities in which there is an adequate supply of hospital beds.

HOSPITAL DEPARTMENTS OF GENERAL PRACTICE

Coincident with this change in the habits of patients, the general practitioners, after centuries without special organization, are now beginning to band themselves together in an organization devoted to their peculiar interests. One program of the new Academy of General Practice deserves, I think, the friendly consideration of all specialists. This is the establishment of departments of general practice in hospitals. I am fully aware of the dangers of abuses of such a department, but I think abuses can be controlled through specific delineation of the scope of the functions and privileges of the department. I am sure that there is no one here who does not believe that the general practitioner is a most important stone in the structure of medical care. In many ways he is *the* most important stone. So, we are faced with a situation and not with a theory. When the practice of the general practitioner moves from the home into the hospital, the general practitioner must either follow it or he must quit business. There is no alternative; and I am confident that no thinking physician wants to see general practice killed.

As regards another program of the American Academy of General Practice, I shall hold reservations until its objective becomes more apparent than it now is. On the surface, it has some appeal. It is that the privilege of engaging in work in the specialties in hospitals be not limited to the members of the specialist staffs but be extended to general practitioners within the limits of the demonstrated ability of each individual concerned. This is to say that Doctor A be given the privilege of doing appendectomies and herniotomies, but no more involved surgery; and that the privileges of Doctor B be extended to gall-bladder surgery; and perhaps Doctor C, also a general practitioner but one who has demonstrated greater capacity, be privileged to do gastric resections.

From a purely theoretical point of view, this proposition is completely sound, and no thinking person would undertake to controvert it upon the ground of basic merit. None of us would deny that there are some uncertified men who are better qualified than some Board diplomates. However, the weakness of the principle becomes immediately apparent when we begin to consider the practical application of the theory. Who would be the judge of the ability of the general practitioner to undertake procedures in the specialties? Presumably the specialist staff, or department head of that particular specialty, in the hospital. Perhaps it would be by vote of the entire active staff. I know of no more certain way of making enemies and alienating people than to deny a request for such privileges. Most specialists must rely upon general practitioners for their patients. In a case like this, the specialist can't win. If he says yes, he doesn't get the cases himself. If he says no, he never gets another case from that general practitioner.

This ambition of the American Academy of General Practice has not been prompted, as you might think, solely by the desire of the general practitioner to board the "gravy train" of the specialist. I am convinced that the shoe is largely on the other foot, and that it is the long-delayed reaction of the general practitioner to the stealing of his patients by specialists, or, shall we say, pseudospecialists. These are the surgeons who set themselves up as specialists but who gladly accept patients in almost all categories. Far too often for his own comfort and welfare, the general practitioner has referred a patient to such a specialist for surgery only to find that thereafter his patient returns to the surgeon for colds in the head and eruptions on the skin. There is a great element of self-defense in this new program of the general practitioners.

So, I wonder whether the solution of this problem lies in the extension of the field of general practice into the specialties, or in better observance of professional ethics by specialists. I am not answering this question; I am only propounding it to you. In answering it, however, we dare not avoid one fact: The staff of a hospital is individually and collectively responsible for the quality of medical care in that hospital. A hospital is more than a workshop open to the use of certain privileged characters; it is an institution whose responsibility to the public must be shared by every member of its staff. That this responsibility is sometimes not discharged does not alter the fact of its existence. No hospital staff can escape it by ignoring it.

GROUP PRACTICE

Increase in specialization has led to another change in the pattern of medical practice which is spreading. This is group practice. Without any pretense of the gift of prophecy, I predict that eventually group practice will be the rule rather than the exception. I think that popular demand for this type of practice will be the deciding factor and that the profession will be forced to conform. At the same time, I do not think that this change will take place overnight.

There is no necessity for reciting the advantages and disadvantages of group practice. In weighing these, however, we must not fail to take into account other social, economic, and demographic changes which are taking place outside the field of medical care. The hard road has sextupled the radius of the centers of primary medical care. The farmer can now reach the doctor's office 60 miles away in less time than it used to take him to drive 10 miles in his buggy. I know of group clinics in essentially rural areas which regularly draw from an area 120 miles in diameter. This makes it possible to pool the medical talent in centers rather than to scatter it throughout the area. This pooling of talent permits of more diagnostic equipment than the individual practitioner can either afford or find the time to employ. Regardless of the merits of group practice in other areas, I am convinced that it offers a good solution to the problem of furnishing medical care in areas where the population is scattered but where roads are good.

Public Relations in Medicine

The medical profession is rapidly becoming conscious of the true meaning of public relations and the urgent necessity of promoting good public relations. Too often public relations have been confused with publicity, the very sound of the word causing the average doctor to shudder. Now doctors realize that publicity is but one method of influencing public relations. Its influence can be either bad or good. In so far as the profession is concerned, too often it has been bad in recent years. However, even when it is good, it is far from the best influence in public relations. The best is the personal relations between the doctor and his patient. The multiplication of these individual relations is the index of the state of the public relations of that doctor; and the aggregate of the public relations of all doctors is the public relations of the medical profession.

This ledger of the public relations account of the medical profession contains entries both in black and in red ink. There are many more entries in black than in red; but it is unfortunate that red catches the eye more quickly than black, and a few red entries appear more numerous than a whole page of black. Everyone knows that one bad experience has more influence than ten good ones.

So, in addition to the public relations program of the American Medical Association, here and there one is beginning to find individual doctors who are, within the spheres of their own influence, undertaking to correct some of the things which are sources of annoyance to the public. One of these is the occasional case of an exorbitant fee.

Let me make it clear that I believe implicitly that it is the inalienable right of every doctor to charge whatever he wishes for his services. He has a perfect right to set a minimum fee of $5,000 for an appendectomy, and no one should ever question that right. The important thing is the way in which the patient learns of the fee.

More and more surgeons, particularly, are adopting the practice of discussing not only their fee but the entire cost of the operation with the patient or the responsible member of the family before the operation is undertaken. In this discussion, the financial situation of the responsible person is carefully considered. I know of one professor of surgery who includes some of his students in this preliminary discussion of fees—a sort of clinic in patient relations—with, of course, the consent of the other party. He tells me that it is very rare that the responsible person shows the slightest unwillingness to have the students present. Before this surgeon suggests a fee, the students retire to decide what, in their opinion, the fee should be. Later the surgeon meets with the students and hears their suggestions, but, of course, this is after he has already fixed his fee with the responsible person. He tells me that, in their initial experiences, the students suggest perfectly outrageous fees, which may either be a reflection of what the public thinks of medical fees or an indication that many medical students enter medicine for the primary purpose of getting rich.

No patient has the slightest cause for complaint if he knows *in advance* exactly to what he is being obligated. Of course, there will always be the emergencies in which there is no time to make any such arrangements, but these are not sufficiently numerous to make any great difference.

I realize that discussions of this kind are distasteful to many doctors, but I think they can be handled in a way that will embarrass neither patient nor doctor. In any event, a little diffidence before the operation would appear to be of less consequence than a stormy argument or lawsuit afterward. I commend this innovation to you for your careful consideration. I am sure that at this critical juncture for medicine we can afford to neglect no opportunity to improve our public relations.

Voluntary Health Insurance

It will be no news to you that insurance has become a very important factor in medical economics, and that its importance is increasing rapidly. This is a trend that is a trend, and one which we could not check if we tried to. The public has served notice that it will have insurance against the costs of medical care. The only choice we have is that between Government medicine and voluntary health insurance, and, if we choose voluntary health insurance, we have no choice but to make it work to the reasonable satisfaction of the consumer. Let's entertain no illusions upon this matter; we either make voluntary insurance work or we get Government medicine.

What are the deficiencies, real or alleged, in voluntary health insurance which threaten its success? Without going into a lengthy discussion of the numerous small plans for the prepayment of the costs of medical care, we can assume that all of them fall into one or another of the two principal categories, commercial companies and nonprofit plans. Each type has deficiencies peculiar to itself as well as sharing some deficiencies with the other.

When we speak of deficiencies, we must keep in mind the job that has to be done by voluntary health insurance if it is to be an effective bulwark against the socialization of medicine. This job is two-fold: The protection offered must be reasonably adequate, and, above all, every insurable person who wants this protection and can pay for it must be able to get it. If voluntary health insurance fails to meet both of these requirements it will fail as a protection against Government medicine.

Commercial health insurance is deficient on three counts. Its administrative costs are too high. It is an exceptionally good policy which returns as much as 70 cents of the policyholder's dollar in benefits. Many commercial companies return as little as 50 or 60 cents, and some even less than that. The rest goes into administrative costs, agents' commissions, reserves, and dividends to stockholders. Considering the benefit return, the cost of such insurance is too high for people of low income.

Another deficiency of commercial insurance is that it offers only indemnity payments rather than service benefits. I have no personal objection to indemnity insurance; but the vast majority of people prefer service benefits and, to them, commercial insurance is not satisfactory.

However, the most important deficiency of commerical health insurance is that it is not interested in covering a large segment of the population which must be covered to make voluntary health insurance effective. In fact, not only is it not interested, it will not consider it at present.

I do not offer this as a criticism. Commerical insurance is a business. The driving force of business is the profit motive. Business cannot long survive upon any other basis. Consequently, on the whole, commercial insurance is interested only in preferred risks. It will not knowingly accept substandard risks except with loaded premiums, and the loading of premiums prices it out of a large part of the market.

The nonprofit plans, on the other hand, do not scale their rates in accordance with the loss risk. They have depended upon the law of averages. They are constantly extending their coverage to the groups that are less desirable from a business viewpoint. To do this, they must have a comparable proportion of preferred risks which will balance their losses in the substandard groups.

It is only the nonprofit plans, then, which are trying to do the job that must be done if we are to defeat Government medicine. I can see the point of view of those physicians who contend that we should leave insurance business to insurance companies and get the doctors out of it. I would support that view if the insurance companies could be trusted to do the job upon which our very survival depends; but I am certainly unwilling to put the future of medicine into the exclusive hands of agencies which, until the present time, have shown no interest greater than their own interest in making a profit. The medical profession must realize, and realize soon, that the commercial insurance carriers will not save us from the socialization of medical care. The public looks upon health insurance as a social movement and not as a commerical enterprise as is other insurance; and, in lieu of compulsory health insurance, the public, by and large, will accept voluntary health insurance only if it displays a feeling of social responsibility. If there were no other, this would be ample reason for the existence of Blue Cross and Blue Shield; and if doctors know what is good for themselves, they will throw their full support behind these great Plans.

As a matter of fact, there is room for all of us in the health insurance field. If the nonprofit plans cannot do a better job than the commercial companies, they had better quit. The fact, however, that they are growing at a faster rate than all the commerical companies together is ample evidence that they are doing a better job; and they will do an even better job when they get the wholehearted support of the medical profession.

The support of doctors is by no means limited to advising their patients to carry health insurance. In fact, this is the least important kind of support. The kind of support which voluntary health insurance needs most is protection against abuses. I wonder how many of you realize that health insurance is the only kind of insurance in the world that is trying to exist without the protection of law against abuses. For example, fire insurance could not exist if arson were not a crime—if, after an unfortunate day at the race track, a policyholder could strike a match to his property in order to replenish his purse.

But it is obviously impossible to prohibit by law the unnecessary use of medical care. You cannot make it a crime for a well person to go and see a doctor—in fact, if you did, it might upset greatly the present status of medical economics. So, the only protection possible for health insurance is the honesty of hospitals and doctors. It is the doctor who says when the patient needs to go to the hospital, what he gets while he is there, and when he no longer needs hospital care. It is the hospital which fixes the charges for this care.

I am very sympathetic with the position in which the doctor too often finds himself in this connection. The insured patient may demand hospital care when it is entirely unnecessary, and it is not easy for the doctor to pit his sense of right and wrong against the capricious desire of a patient. However, we must do everything possible to control the rising rate of utilization of hospitals. It is increasing all the time. This increases the cost of protection, and increased cost of protection squeezes out the lower income groups—the very ones whom it is essential to keep protected.

Increased utilization of hospitals, however, is not the only abuse of voluntary insurance. Unnecessary X-ray and clinical laboratory examinations and unnecessary medication are also raising the costs of voluntary health insurance. Residents and interns are apt to run wild if they are not closely watched; and, from the tons of vitamin pills that Blue Cross is called upon to pay for every year, I sometimes think that avitaminosis is a class disease among Blue Cross subscribers.

Then, too, that doctor is doing voluntary health insurance no favor who uses the insurance payment merely as a platform upon which to erect another fee. Patients are not stupid. They can usually detect the raising of a fee because of their insurance, and they can always measure the value their insurance has been to them. When they are called upon to pay a large additional fee, they see no value in their insurance.

The application of service benefits in Blue Shield Plans has caused some problems and is still the topic of heated arguments among doctors. I might say that, upon principle, I am opposed to the rigid fixing of fees. However, the practice of medicine is now in a position where, if we insist upon every advantage, we shall lose everything. The majority of the public are completely sold upon the service-benefit principle for the low-income group; and I am fully convinced that the medical profession must make this concession or we shall be forced into a much worse position.

I have always advocated a realistic income limit for full service benefits in medical care insurance. I do not think this income limit should be so high that 95 per cent of the population fall beneath it. But just as firmly do I believe that physicians must, in their own interest, abide by the income limit set and not only make no additional charge in cases falling under it but also make their charges in cases slightly above it with some relation to the income limit, rather than doubling the scheduled fee when the patient's income is only a little above the limit.

After all, full service benefits offer prompt payment of many bills which could otherwise be collected only with difficulty, if at all; and the fee schedule is higher than those in the lowest income brackets could pay out-of-pocket. So, it averages out pretty well.

The prepayment of the costs of medical care is, then, one of the most important trends in medical practice today. Upon the development of this trend through voluntary means depends the continued freedom of medical practice. I do

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EXFOLIATIVE CYTOLOGY AS A TOOL FOR THE CLINICIAN*

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IN THE year 1950 the doctor who says, "The only hope for curing cancer lies in early diagnosis," speaks a truth, but not a new one; for that remark is said to have been made by Galen in 131 A.D. At least since the second century A.D. conscientious doctors have been striving to diagnose cancer earlier. The Twentieth Century Cancer Detection Center is an organized group effort at facilitating detection of early cancer. It was the Cancer Detection Centers which popularized exfoliative cytology; but exfoliative cytology is not a discovery of the twentieth century. The earliest pathologists realized that living tissues exfoliate cells and that these cells can be found in the fluids of their habitat. It has long been a routine procedure to centrifuge fluids from paracenteses or thoracenteses and to study smears made from the sediment for the possible presence of cancer cells. Whoever started this, and I do not know who or when that was, started cancer cytology. The widespread current interest in cytology has resulted in many technical improvements and in a wider application of the method to medical problems.[1, 2, 3, 4, 5] Today the terms cancer cytology, the cytologic technic, the cytology test for cancer, cytodiagnosis, exfoliative cytology, and the Papanicolaou technic are commonly met in the literature.

Gynecologic Cases

Although Dr. Papanicolaou did not invent exfoliative cytology, it is fitting that his name should be associated with the method, because he has done so much to expand its usefulness. He has developed a special polychrome stain (bearing his name) which is excellent for cytologic work and is peculiarly adapted to the gynecologist's use of exfoliative cytology. Papanicolaou and his associates have also given the gynecologist two remarkable and highly useful textbooks, published through the Commonwealth Fund.[6, 7]

Many workers have devised methods of collecting materials, processing, staining, and interpreting vaginal smears. The clinician who wishes to make use of vaginal smears needs to know enough about these to be able to select what best suits his purpose. Four methods of collecting vaginal material are outlined below.

To make smears by the pipette method:

1. Place a clean, gloved finger (wipe off powder and use no lubricant) into the vagina. Insert the pipette (asepto type with large removable bulb) along the finger into the posterior fornix. While aspirating, direct the tip of the pipette with the finger around the fornices and over the portio vaginalis of the cervix. This secures a vaginal aspiration.

Or,: With the speculum in place, sponge off the cervix; place the pipette tip into the cervical canal and aspirate. Do this if you are especially interested in the cytology of the endocervical or uterine cells. The specimen is called a cervical aspiration.

2. Expel aspirated material onto 2 clean glass slides, spreading gently into thin, even smears.

3. Drop the slides before dry into the fixing solution. The fixing solution is composed of equal parts of 95 per cent ethyl or absolute methyl alcohol and ethyl ether.

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* Presented at the Annual Meeting of the American Association for the Study of Neoplastic Diseases in Washington, D. C., April 28, 1950.

To make smears by the spatula method:

1. Insert speculum and sponge off cervix with cotton applicator or gauze. Place long tip of spatula (Ayre cervical surface biopsy spatula made of wood) into the os and rotate the spatula with gentle but firm, even pressure.

Wipe the edges of the spatula on one side of each of 2 clean glass slides so as to make thin, even smears.

3. Drop slides into the fixing solution before the smears are dry.

To collect material by the gelfoam sponge method:

1. Expose cervix with speculum in place.
2. Hold a piece of gelfoam sponge (1 cm. square) gently in uterine packing forceps and rub over surface of cervix.
3. Drop sponge into 70 per cent alcohol.

To collect material by saline douche:

Fill the syringe (asepto type) with normal saline. Having the patient in lithotomy position and before doing pelvic examination, place the syringe tip into the vagina, expel saline, aspirate and reëxpel several times. Aspirate. Expel into small flask or test tube. This is the specimen for flotation.

The purpose of these various methods is to collect materials best suited to the purpose of the particular study. Obviously, the best general survey of the cytologic content of the vagina is made from the vaginal aspiration. The spatula makes a scraping or surface biopsy of the cervix, producing a smear which is cleaner and therefore more useful in cancer detection. The gelfoam sponge (so useful in other cytologic fields) is mentioned here only to condemn its use in vaginal work. The processing is as costly and more troublesome than a biopsy and, in my opinion, serves no useful purpose in vaginal cytology, except possibly in very bloody cases. The saline douche is a very new development and may offer great hope in cancer detection because of the concentration of epithelial cells and absence of extraneous matter in the smears prepared from the fluid after processing by flotation. The practical value of this has not as yet been demonstrated, but should logically save considerable time for the microscopist.

Whatever the technics of the method, the value or the reliability of the smear depends upon the cytologist. This was brought out by Dr. J. Ernest Ayre (Royal Victoria Hospital, Montreal, Canada) in his paper given at the spring meeting of the American Association for the Study of Neoplastic Diseases in Washington last April, when he said, "Poor percentages are due to the inexperience of the cytologist, not to inaccuracies of the method." At that time he reported on 3,605 hospital cases studied at the Royal Victoria Hospital, Montreal, with a finding of 167 cases of cancer of the cervix. Three of these were missed by cervical scraping smears (that is, there were false negative smears on 3 cases of cancer). Fifteen of the cancer cases were missed on the first punch biopsy of the cervix. From these figures he made his famous claim that vaginal smears are 5 times as reliable as punch biopsies in cancer detection. However accurate that statement may or may not be, two facts are generally agreed upon: (1) Reported figures on the reliability of the vaginal smears vary from 50 to 97 plus per cent in cancer detection, and (2) the experience of the cytologist is an important factor in the reliability of the smear reports.

To a certain extent the cytologist's reliability depends on personality qualifications. Necessary characteristics are patience, conscientiousness, visual memory, and adherence to routine. A well-trained technician who possesses these characteristics may reliably screen (give preliminary reports on) 30 to 40 slides in an 8-hour day, that is, 15 to 20 cases a day. This is important, since it places the human limits of the method in mass survey in cancer detection work.

Under the most favorable circumstances, how can vaginal smears serve the gynecologist?

1. *Cancer detection.* Ideally, every adult female who presents herself should have the advantage of routine vaginal smears in an effort to discover her cancer (if any) in its earliest stage.

2. *Differential diagnosis of erosions.* The best clinicians make frequent mistakes on erosions without laboratory confirmation of types of erosions. Trichomonas vaginalis, mixed infection, and hormonal imbalance, in addition to cancer, can be cytologically recognized.

3. *Hormonal assay.* A rough estimate of the estrogenic status of the patient may be judged from the smear. The cervical epithelium has been demonstrated[8] to be the most sensitive tissue in its ability to respond to estrogenic stimulation. Many papers have been published on the utilization of various estrogenic substances, vaginal smears being used as an objective tool in measuring the response.

4. *Other conditions of the generative tract.* Pregnancy, abortion, polyp, fibroid, endometriosis, and other pelvic abnormalities give characteristic vaginal smears which can be recognized by the alert and experienced cytologist.

Who should do the gynecologist's cytology? The answer to this depends on many factors, chief of which is the facilities available.

If the doctor has more patients than time, probably the best procedure is to find a good laboratory that offers satisfactory service at a reasonable cost. Several such are available to Washington doctors. Distance from the laboratory is no problem in this age. One of the best staffed and equipped cytology laboratories is probably the Gynecytology Laboratory at the Royal Victoria Hospital in Montreal. This laboratory specializes in air mail service.

If the doctor has a flair for cytology, why not do some of it himself? One doctor in Washington with a large general practice confined to women does her own cytology. Since May 1948 she has placed 9 patients with cancer under treatment. One recent case deserves mention. The patient, a white woman aged 31, came to her for infertility studies. She gave the patient a complete physical examination including vaginal smear. Although clinically negative for any suspicion of cancer, the patient's first smears were found to be Class IV or V. Instead of doing a Rubin test the doctor referred the patient to a reputable gynecologist for dilatation and curettage with biopsy. The suspicion of cancer was confirmed by biopsy (squamous carcinoma of cervix).

Undesirable outcomes may arise from the clinician doing his own cytology; for example, he has no one to blame for doing "unnecessary" curettings, or he may be tempted to do surgery on the basis of a Class V even though this is "not done." What disrepute there is concerning cytology stems from this unfortunate outcome of unwarranted enthusiasm. To overcome this, one need only remember, no matter who gives it, that a cytology report is not a biopsy and not an official diagnosis of cancer. Regardless of what treatment is selected, any treatment of cancer is radical. Radical treatment must be based on accurate and official diagnosis, not on a smear report.

However, the doctor may get satisfaction from following his own cases with smears. Any doctor can soon learn to evaluate response to various kinds of therapy and to recognize abnormal cells. Questionable smears can be sent to an expert for an opinion. Processing smears is time-consuming but not too expensive. It is possible to train the office help to handle the staining satisfactorily.[9] In deciding how much cytology to do himself the doctor may apply the same criteria used in regard to other laboratory work on patients. The net result is that the doctor personally does as much of it as he considers it profitable for him to do.

The usefulness of cytology as a routine office procedure has not been demonstrated in fields other than gynecology, yet physicians generally wish to be informed on smears in all fields in order (1) to know the limitations and possibilities, (2) to know how to collect materials satisfactorily, and (3) to be able to interpret the report sensibly in the light of other findings.

Smears for cytologic study can be made from any body source, but some sources are not logically suitable for cytology. For example, spinal fluid could scarcely be expected to contain malignant cells from tumors other than those rare cancers of the meninges, or where metastatic growth is found within the spinal cord. When such tumors occur above the pons, increased intracranial pressure usually interferes with the circulation of the cerebrospinal fluid. Hence neurologists have not spent much time trying to employ cytology as a cancer detection tool in their field.

Nasal, pharyngeal, and paranasal sinus smears should be highly useful in early detection of cancer in these hidden areas. However, this field has not been developed. We have attempted several methods of collecting materials and have a few positive smears from cancer cases. Standards for evaluation of these smears have not been set up. Cytologic study of this area would, I think, make an excellent research project, but as yet cytology has little to offer the otolaryngologist.

Aspiration biopsies of the thyroid or of lymph nodes are hardly suitable cytologic material. Skin smears can be used and may even be fairly reliable, but when a lesion can be excised completely and studied by means of histologic sections, why employ smears as a routine diagnostic procedure? The clinician can profitably use information gained by cytologic study of smears from some other sources. A few of these, together with suggestions concerning collection of materials, are mentioned below:

GASTROINTESTINAL EXAMINATIONS

Gastric washings should be obtained through a stomach tube from a fasting stomach. The stomach is washed with normal saline. The specimen (50 c.c.) should be preserved immediately by adding an equal volume of 95 per cent alcohol or 10 per cent formalin. Gastric washings offer a better chance of finding cancer cells from adenocarcinoma than do aspirations.[10] Even so, false negatives in this field are high (15 to 40 per cent), since extraluminal lesions cannot desquamate cells into the tract where the specimen is obtained.

Rectal smears can be made from scrapings obtained through sigmoidoscope or from saline washings obtained after adequate cleansing enemas. Rectal smears are fixed in ether-alcohol as in the case of vaginal smears. Rectal washings should be preserved by adding an equal volume of 95 per cent alcohol.

BRONCHOPULMONARY EXAMINATIONS

Sputum is collected in 70 per cent ethyl alcohol. The patient is told not to spit into the bottle but to clear the mouth and throat and then to give a deep cough and expectorate into the bottle. The mouth should be washed out after eating before collecting the sputum. A 24-hour sputum collection is delivered to the laboratory in the bottle in which collected. Three 24-hour specimens are usually studied on each case before the reports are considered valid. Bronchial washings are greatly to be preferred to sputum for cytology. The reliability of bronchial washings is high, comparable with that of vaginal smears.

URINE EXAMINATIONS

Urine cytology is done on specimens handled as follows: Collect a fresh specimen, catheterized in women, clean voided in men, and catheterized through the ureters for specific kidney studies. Immediately add 10 per cent formalin or 95 per cent ethyl alcohol to the specimen in volume equal to that of the specimen.

PROSTATIC SMEARS

Statistics on the reliability of routine prostatic massage smears in cancer detection are not available, but the method has been employed many times to confirm suspicions. Voided urine for prostatic cytology is not advisable. The method for collection of material is as follows:

Have the patient empty the bladder, then drink a glass of water. Do prostatic massage. If material is available, do a direct smear from the urethral orifice, catching a drop or 2 on a slide and gently spreading into a thin, even smear. Make 2 slides. Place the slides in the ether-alcohol fixative before dry. If there is abundant material, catch it in a test tube and preserve it with an equal volume of 95 per cent alcohol. If no material is readily available, have the patient void. The fresh urine passed after a prostatic massage is a satisfactory specimen. It should be preserved with 95 per cent alcohol.

NIPPLE SMEARS

Nipple smears are made by squeezing the nipple gently so that a few drops of fluid are on the surface of the nipple. The central portion of a clean glass slide is patted against this fluid. Allow it to dry thoroughly. Statistics on the reliability of nipple smears are scant but seem to show that the yield in cancer detection is low. Case reports on unsuspected cases found by this means are dramatic. The technic is so simple and inexpensive that it merits wider application in general practice. Those cases in which positive smears are reported should be carefully followed until the diagnosis is established.

BODY FLUIDS

Cytologic studies are done on fluids obtained from breast cysts, pleural or peritoneal aspirations, or other sources. A specimen of 20 to 50 c.c. is ample. Be sure that the specimen is preserved immediately upon collection by adding an equal volume of 95 per cent ethyl alcohol or 10 per cent formalin. If a delay of more than a few hours between collection and delivery to the laboratory is unavoidable, the specimen should be refrigerated. Send it to the laboratory in a stoppered container with adequate identification and information as to where the report is to be sent.

METHOD OF REPORTING

Cytodiagnostic reports are given to physicians in the following terms:

Class I, Negative—meaning perfectly normal, no suspicious cells seen.

Class II, Abnormal—not suspicious of cancer but indicating some other abnormality, such as infection or hormonal discrepancy.

Class III, Abnormal with a few suspicious cells—meaning that no definite conclusion can be reached but that some of the cells are consistent with cancer.

Class IV, Suspicious—some scattered cells look like cancer.

Class V, Cancer—scattered cells and groups of cells are typical of cancer.

Classes I and II are interpreted as negative for cancer. Classes IV and V are considered positive for cancer. Class III reports are equivocal. All reports should be interpreted in the light of other findings on the patient[6] (pages 43–6). As is the case with reports of all laboratory procedures, cytology inconsistent with the total picture of the patient should be viewed with suspicion. A negative report is not unequivocal proof that the patient is free of cancer in the organ from which the specimen was obtained. Even under the best cytologic conditions false negatives will be obtained on specimens when the lesion is sealed off from the surface. Class III reports call for follow-up as indicated by the clinical picture. Clinicians often find it wise to refrain from using the word "suspicious" in discussing these equivocal reports with patients. Class IV or V reports demand follow-up. Vaginal smears in these two classes are generally accepted as adequate indication for hospitalizing the patient for a diagnostic curettage and multiple cervical biopsies, even in the absence of signs or symptoms of cancer. In fields in which histologic confirmation cannot be obtained short of major surgery, positive reports are interpreted in the light of findings on all other diagnostic procedures available.

One more use of cytology deserves mention here, namely, in the field of research, especially cancer research. It is generally believed by those

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CHRONIC ARTHRITIS IN REITER'S SYNDROME

Report of Two Cases

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IN 1916 Reiter,[1] a German physician, reported a disease complex observed in a soldier whose symptoms were urethritis, conjunctivitis and arthritis of nongonorrheal origin. As a causative agent, an atypical spirochete was isolated from the blood. The same year Fiessinger and Leroy[2] in France discussed a similar syndrome but ascribed the cause as due to dysentery bacillus. Since then the foreign literature has described additional lesions such as balanitis, prostatitis, dermatitis, and subungual abscesses mentioned as complications. The first American publication to deal with Reiter's syndrome did not appear until 1942, when Bauer and Engleman[3] described it as a "syndrome of unknown etiology."

Although the lesions strongly resemble those of Neisserian infection, the gonococcus has never been isolated in a single case. The spirochete of Reiter was not confirmed or again mentioned. Other organisms such as viruses and intracellular parasites have been isolated by various investigators, but there is no agreement. Some authors[4] believe that dysentery may be involved, and the case of a 4-year old boy, reported by Florman and Goldstein,[5] showed a positive Shigella titer which decreased as the illness subsided. Nevertheless the etiology is still a mystery.

Young men are usually affected. The onset may or may not be accompanied by diarrhea. After a few days urethritis, conjunctivitis, dermatitis, and less characteristically, balanitis, prostatitis, and subungual abscesses appear. Within a variable period of time, from a few days to 6 weeks, arthritis, usually polyarticular, is noted. Although the pain is moderate, the swelling is marked and there is effusion in some cases. Cultures from the pus or exudate have revealed no organisms. The other lesions subside, but the arthritis persists for some time. Most writers have reported no permanent joint lesion but have described involvement of almost every joint in the body. In 2 cases under my observation the joints involved resemble both gonorrhea and gout and the lesions are those of chronic arthritis involving soft tissue as well as bone.

Reiter's syndrome has generally been regarded as acute and self-limiting and with no permanent sequelae. Some writers have stated that there are no recurrences. Since most of the cases described were observed in military personnel, it is quite likely that the patients were not under observation long enough to present the recurrences and the permanent changes which affect the joints. In 1 of the 2 cases to be reported there were 5 recurrences, and the chronic arthritis was not manifested until after the last attack.

REPORT OF CASES

Case 1. R. S., a white man aged 44, in June of 1945 suffered a mild attack of diarrhea. Following this there appeared the symptoms of urethritis, conjunctivitis, and acute arthritis. After 7 months of treatment at a military hospital recovery was complete and there were no symptoms other than easy fatigability. About a year later there was a recurrence of the urethritis, conjunctivitis, and arthritis. After 5 months of treatment he was again asymptomatic. In April 1948 there was another acute episode with the symptoms rather severe. The right knee developed an effusion which was aspirated. Careful laboratory investigation of the blood and purulent discharge failed to reveal any organism. In June 1948 subungual abscesses of all of the fingers and toes appeared and acute arthritis of the right elbow and both great toes caused these to swell markedly. Ulcers involving the oral and penile mucosa as well as purulent conjunctivitis complicated the condition. The nails of the fingers and toes dropped off. After some time there was improvement, but readmission to the hospital had to be made in April of 1949 because of pain in the right knee and swelling and pain of the fingers and toes. Since the last discharge from the hospital in November 1949 there has persisted a marked swelling of the terminal joint of the left 5th finger, swelling of both great toes, and deformity of the nails of the fingers and toes (figures 1 and 2). X-ray findings prior to 1950 were described as showing no lesions, but films made in February 1950 showed loss of bone substance near the articulating margins of the distal end of the middle phalanx and proximal portion of the distal phalanx of the left 5th finger. The shaft of the middle phalanx of the left 5th finger showed proliferative enlargement. Both destructive and proliferative changes were seen at the joint margins of both great toes (figure 3). Roentgen examination of the left foot and ankle showed spurring of the inferior surface of the os calcis and sclerosis of the posterior margin of this bone.

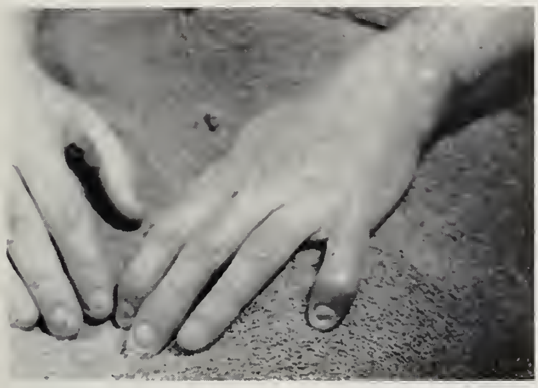

FIG. 1. Case 1. Swelling and flexion deformity of the distal joint of the 5th finger. The nails are irregular and deformed.

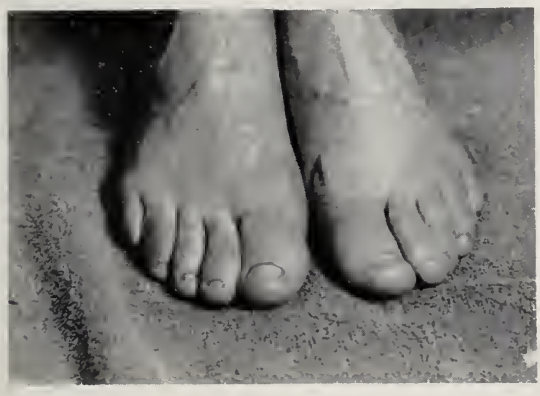

FIG. 2. Case 1. The great toes are swollen, but all the nails are irregular and deformed. For X-ray findings see figure 3.

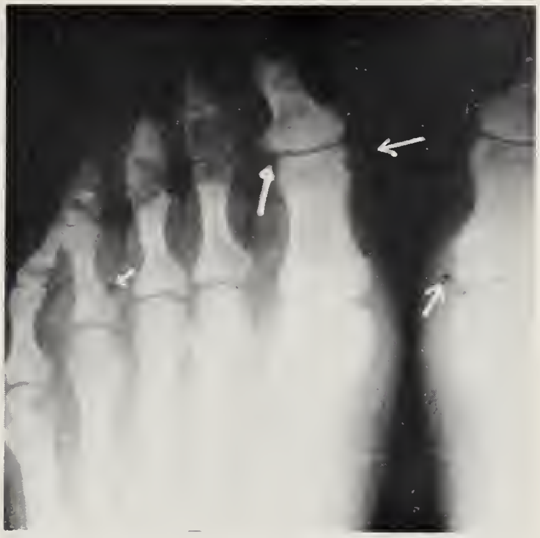

FIG. 3. Case 1. Notched joint margins resembling gout. Also present are proliferative changes.

Case 2. P. C., a white man aged 22, while living in Florida in 1947 developed a mild diarrhea. Following this, the symptoms of urethritis and mild conjunctivitis appeared. The attending physician, who was not a urologist, diagnosed the condition as gonorrhea and prescribed penicillin. These symptoms soon disappeared, but 6 months later the left ankle and the right 4th finger became greatly swollen and painful. At about the same time the finger nails developed subungual abscesses. The marked swelling, pain and stiffness of the right 4th finger and the left ankle had persisted when the patient came under my care. X-ray films of the fingers and ankle revealed narrowing of the joint space of the distal interphalangeal joint of the 4th finger of the right hand, hypertrophic changes, and soft tissue thickening (figure 4). The left ankle showed hypertrophic changes of the malleoli and haziness about the joint space, probably resulting from soft tissue thickening and other inflammatory changes (figure 5). There was spurring of the inferior surface of the os calcis. Treatment consisted of bandaging and supporting the swollen joints and the use of intravenous procaine solution, 0.1 per cent. After a few months some improvement was noted, but due to the long hours of standing incident to the patient's occupation the ankle was not greatly improved. Bed rest in a hospital was then prescribed and the procaine solution again used. Laboratory investigation of the blood during hospitalization showed a normal leukocyte count (between 7,000 and 8,000) but a persistently high polymorphonuclear leukocyte count (75 to 85 per cent). The sedimentation rate varied between 43 and 41 mm. After 28 days enough improvement was noted to permit the patient to return to work. The last examination made in March 1950 showed reduced swelling of the finger and ankle and considerable amelioration of pain and stiffness.

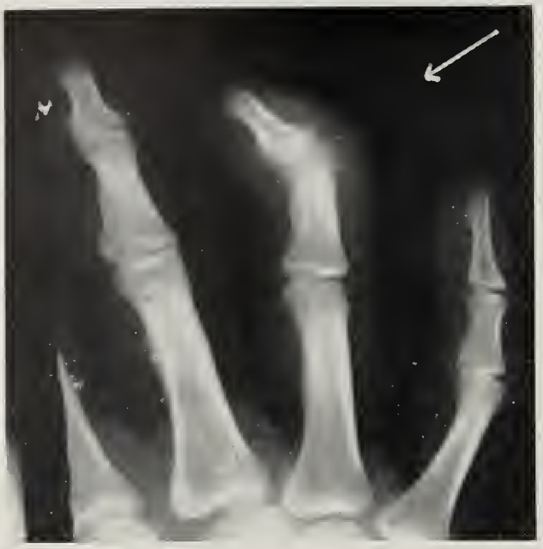

FIG. 4. Case 2. Marked swelling and deformity of the terminal joint with proliferative changes.

These 2 cases are illustrative of the fact that contrary to the statements of most contributions on Reiter's syndrome, the arthritis tends to become chronic, with permanent bone and soft-tissue changes of varying degree. The lesions in which the bone is notched resemble gout. The disease differs from rheumatoid arthritis in that there are no crystalline deposits in the soft tissues and no subcutaneous nodules. Late changes are so like that of Neisserian infection that a few differential points are worthy of tabulation.

	Gonorrheal Arthritis	Reiter's Syndrome
Cause	Gonococcus of Neisser	Unknown
Onset	Acute or subacute	Subacute
Joint	Knee, hip, ankle	Fingers, toes, knee
Pain	Very severe	Moderate to mild
Pathology	Marked changes	Moderate changes
Stiffness	Complete or partial ankylosis	Moderate stiffness
X-ray	Marked bony changes	Moderate changes
Treatment	Specific (penicillin)	Nonspecific (procaine)

The presence of moderately painful swelling involving one or more fingers and toes, with deformity and irregularity of the nails, should be an indication that the disease may be a late manifestation of Reiter's syndrome. A history of urethritis and conjunctivitis with no demonstrable causative agent is conclusive diagnostic evidence.

Since the cause is unknown, treatment must be symptomatic. The antibiotics and chemotherapeutic drugs have been reported as ineffectual. My experience with intravenous procaine solution has been encouraging. The pain, stiffness, and swelling are considerably lessened, but it is doubtful if the bone changes are altered, once X-ray evidence is definite.

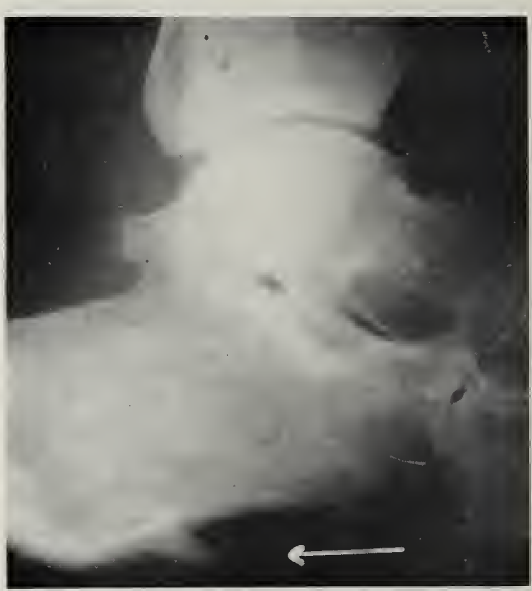

FIG. 5. Case 2. Spurring of the os calcis. The tibio-astragalar joint is narrowed and hazy. This is more clearly seen in the anteroposterior view.

Summary

The late manifestations of Reiter's syndrome have been discussed with special reference to joint involvement. The differential diagnosis from gout, rheumatoid arthritis and gonorrheal arthritis is considered. Two cases are presented which are illustrative.

(*Continued on page 472*)

SURGICAL TREATMENT OF ULCERATIVE COLITIS

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IT IS difficult to evaluate the results of any form of treatment of idiopathic ulcerative colitis because of the extreme variability of the disease. Symptoms may be sudden in onset, and of great severity, the condition of the patient progressing rapidly from one of apparent good health to that of extreme gravity. Other individuals exhibit few symptoms and continue to remain in relatively good condition for long periods of time in spite of X-ray and proctoscopic evidence of inflammatory induration and ulceration of the colon. Spontaneous cures without treatment are not uncommon, and at the same time the disease may recur in supposedly healed cases under the influence of psychic stress. Any statement, therefore, of the effect of one type of treatment and cure must be made guardedly and only on the basis of a large number of cases.

The etiology of this disease has never been determined. In spite of much investigative work, neither bacterial, allergic, nor psychic influences have been proven to be the sole causes of the acute and chronic inflammatory lesions which appear in the colon. It seems probable that psychic and neurogenic factors predispose the bowel to bacterial invasion. Recently Karl Meyer and his associates[1] have demonstrated increased amounts of a mucolytic enzyme, lysozyme, in ulcerative colitis during exacerbations of the disease, and a corresponding fall with clinical improvement.

Classification of Cases

Many ulcerative colitis patients can be treated successfully by medical measures alone. Therefore, a careful classification is important to determine which patients can be treated conservatively and which may require surgical intervention. Fansler and Frykman[2] have divided cases into 3 groups, (1) mild, (2) moderately severe, continuous or recurring, and (3) fulminating.

Patients with the mild type of ulcerative colitis are usually able to carry on their normal lives without great inconvenience except for the frequent passage of loose soft stools containing blood and mucus. There are no symptoms of toxicity. X-ray examinations may be negative, and proctoscopic examination may reveal only hyperemic or edematous mucosa without ulceration. Such patients usually respond well to conservative management.

The severe type of the disease frequently develops suddenly in apparently healthy patients with fever, severe diarrhea, generalized cramping abdominal pain, and the passage of large amounts of blood, pus, and mucus by rectum. These patients often die regardless of the type of treatment carried out. Fatality results from perforation with peritonitis or from hemorrhage from the intestine. Surgical treatment is indicated as an emergency measure, the usual procedure being a simple ileostomy under local anesthesia. Good results have also been reported, however, from the use of vagotomy in this type of the disease.

The most common type of ulcerative colitis is the moderately severe form with remissions and exacerbations but a steady progression of pathologic changes. During exacerbations fever, abdominal pain, and increased bloody diarrhea are present. These subside either spontaneously or as a result of medical treatment for varying intervals of remission. Throughout the disease, however, a gradual increase in inflammatory thickening, ulceration, and shortening of the colon occurs (figure 1). Although some of these patients can be treated successfully for long periods of time, and all should be given a thorough trial of medical management, many come to surgical treatment because of frequent recurrences with economic loss or because of active progression of the disease with the danger of malignancy.

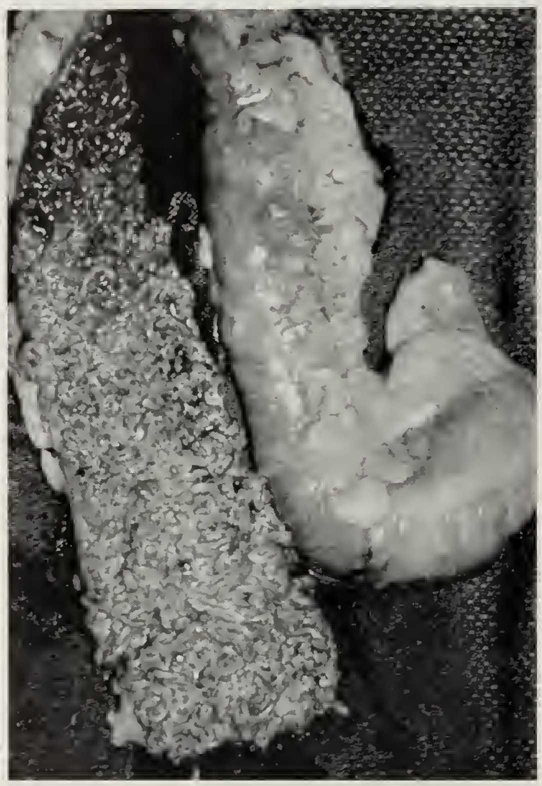

FIG. 1. Polyp formation in chronic, nonspecific ulcerative colitis

It seems certain that when more is known of the etiology of ulcerative colitis, more and more cases will be treated successfully by medical measures alone. At present, however, the trend is toward earlier surgical intervention, both in the acute fulminating cases to avert mortality and in the chronic recurring ones to prevent the onset of such complications as arthritis, anal and rectal fistulas, recurrent thrombophlebitis, stricture formation, perforation, hemorrhage, polyposis and malignancy.

Patients suffering from ulcerative colitis, especially of the fulminating type, are notoriously poor surgical risks. In severe cases even the simplest loop ileostomy under local anesthesia may result in fatality. Therefore, it is extremely important to insure the best possible preparation for surgery by the means of blood transfusions, intravenous protein, vitamin therapy, and antibiotics. The most important single preoperative therapy is blood transfusions. Surgery must be carried out rapidly with the least possible trauma and with the best anesthesia available.

OPERATIVE PROCEDURES

Operative procedures are of two types, those directed toward the bowel itself and those directed toward the nerve innervation of the bowel.

The most useful operative procedures on the intestine itself are: (1) ileostomy alone, (2) ileostomy with complete colectomy, with or without removal of the rectum, (3) partial or complete colectomy with anastomosis of the ileum to the remaining segment of colon or rectum, and (4) complete colectomy with preservation of the anal sphincter with performance of an anal ileostomy.

Vagotomy has recently been used successfully to decrease parasympathetic stimulation.

Nowhere in the field of surgery is careful surgical judgment and consultation between the surgeon and the internist more imperative than in the treatment of ulcerative colitis. Most operative procedures, especially in the fulminating cases, must be staged, beginning with the simplest procedure (usually ileostomy), and followed step by step, as the condition of the patient warrants it, by partial colectomy or complete colectomy.

ILEOSTOMY

Ileostomy alone as a permanent measure is not usually satisfactory except in early cases of ulcerative colitis. However, in the acute severe case with fever, tachycardia, frequent hemorrhages, and evidence of toxicity, it is frequently a life-saving procedure. By by-passing the colon it decreases the absorption of toxins and allows healing to take place, tends to prevent severe hemorrhage, and allows the patient a breathing spell in preparation for removal of the diseased bowel. In a few instances of segmental involvement of the colon, in which the rectum and sigmoid colon are free or nearly free from disease, a preliminary end-to-side ileosigmoidostomy instead of open ileostomy may be performed. Occasionally, if only the left colon is involved, a transverse colostomy may be used.

In very ill patients a simple loop ileostomy under local anesthesia should be performed. This should be done through a right rectus incision or through a McBurney muscle-splitting incision, the ileum being brought out about 8 inches from the ileocecal valve, the mesentery partly divided, and the fascia and skin sutured under it. This can be done in a very few minutes and should be completely divided after the edges of the bowel have sufficiently adhered to the peritoneum and skin.

In most instances a permanent end ileostomy with complete diversion of the fecal stream and separation of the bowel ends will be possible. Using the technic of Dr. Henry Cave,[3] a right rectus incision is made, the terminal ileum located, and through another small McBurney type of incision, a Kocher clamp is placed across the bowel about 8 inches from its distal end. The bowel is then divided and the proximal functioning end brought through the McBurney incision. The distal end is brought into the lower end of the right rectus incision to aid in its removal if colectomy is performed at a later date. The mesentery is sutured to the peritoneum to hold the 2 ends in place and to prevent them from dropping back into the peritoneal cavity. No sutures should be placed through the peritoneum and into the bowel wall because fistulas are very common following this practice. To avoid a double-barreled ileostomy orifice the nonfunctioning lower end of the divided ileum can be closed and brought through the peritoneum and fascia only, at the lower end of the right rectus incision. This prevents leakage into the peritoneal cavity in case the closed end should break down. Some operators close the distal end completely and drop it into the peritoneal cavity, but if at a later date the colon becomes completely obstructed by scar tissue, a closed loop will be formed and breakdown of the distal ileal stump may occur.

In 1941 Dragstedt[4] suggested the use of split thickness skin grafts around ileostomy orifices to prevent irritation of the skin and to allow the end of the ileum to be placed inside a tightly fitting bag. I have employed this procedure a number of times and find it to be a great comfort to the patient. When a skin graft is to be applied, the functioning end of the ileum is brought out throught the McBurney incision for a distance of about 2 inches. The mesentery should be placed at the lower end of the incision so that when it contracts the end of the ileum will look downward and fit more snugly into the bag. A simple, split-thickness skin graft is then sutured around the exposed ileum, care being taken to apply it very loosely to prevent stricture formation (figure 2).

A firm, abundant gauze dressing is then placed around the ileostomy, and the Kocher clamp on the bowel is removed in 24 or 48 hours. No enterostomy tube should be placed inside the ileum, since this may result in a perforation of the bowel inside the peritoneal cavity. A number of deaths have been reported from this cause. The bowel should be handled extremely carefully, since even slight handling of the acutely inflamed colon and terminal ileum may result in perforation and peritonitis.

COLECTOMY

When the patient has shown evidence by gain in weight, disappearance of toxicity, and general improvement that he is able to tolerate further surgery, the question of whether or not to perform a complete or partial colectomy must be considered. It is important in ulcerative colitis to wait long enough to allow complete recovery from each step in the operative procedure before performing the next. The general indications for a colectomy following ileostomy or ileosigmoidostomy in ulcerative colitis are: (1) continued bleeding, (2) the presence of polyps or pseudopolyps as noted on proctoscopy or barium enema studies, (3) danger of malignancy, (4) continuing toxic symptoms, and (5) continuing pain and tenderness in the region of the colon. If these symptoms persist for a number of months complete colectomy should be performed if the rectum and sigmoid are extensively involved in the disease.

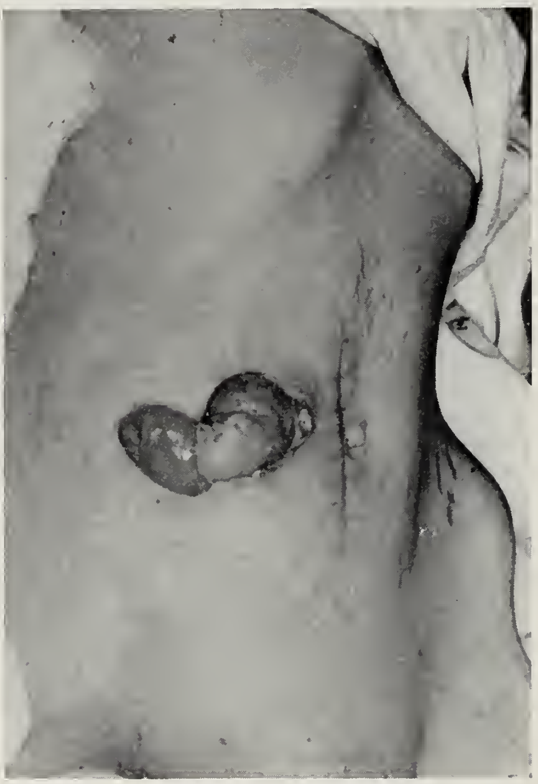

FIG. 2. Skin-grafted ileostomy in ulcerative colitis

If the sigmoid and rectum are not involved or are only slightly involved in the disease, preliminary ileosigmoidostomy can be performed, followed by resection of the ascending, transverse, and descending colon at a later date. In some instances, following ileostomy the entire colon except the rectosigmoid can be removed and later an anastomosis between the terminal ileum and sigmoid or rectum performed. Although rarely possible, this is the ideal procedure from the point of view of the patient. A number of instances have been reported in which ileosigmoidostomy has been performed without exacerbation of the disease in the rectum and sigmoid. In others, however, there has been such a severe exacerbation of the disease that it has been necessary to reform the ileostomy and later remove the rectum.

Ravitch[5] has reported a number of cases in which the entire colon has been removed and the ileum delivered out through the anal sphincter muscle to form a peroneal ileostomy with sphincter control. In my experience this procedure has rarely been successful. Even in the presence of a well-functioning sphincter muscle, sensation in the ileum in my cases has been poor; although the bowel can be controlled the patient does not know when the terminal ileum is about to discharge. Furthermore, control in my experience usually has not been good. If control is not satisfactory, the patient is more comfortable with an ileostomy on his abdominal wall where he can care for it easily.

Following ileostomy, ileosigmoidostomy, or the Ravitch procedure, the colon is removed in the usual way, beginning at the cecum, mobilizing the hepatic flexure, and removing as much bowel as possible without undue shock to the patient. The intestine must be handled carefully and gently. If the patient's condition fails on the operating table, the distal colon can be brought out into the wound wherever it may be. The splenic flexure is mobilized and the colon removed down to the lower sigmoid. If an ileosigmoidostomy has been performed, it may be wise to bring out the lower end of the sigmoid just above the anastomosis to allow better healing, especially if the bowel wall is edematous or inflamed. If the rectum or sigmoid is extensively involved, an abdominoperoneal resection of the remaining bowel will often be necessary.

VAGOTOMY

In 1946 Dennis[6] of the University of Minnesota performed a transthoracic vagotomy for ulcerative colitis. The operation was performed upon a patient who had developed active ulcerative enteritis in the 6 feet of the jejunum and ileum which remained after numerous resections of the colon and ileum for ulcerative colitis and enteritis. The response was striking and led Dr. Dennis to employ vagotomy as the sole surgical procedure in 4 patients with low-grade colitis. They were observed for 6 months, after which time all were asymptomatic and showed a healed mucosa on proctoscopic examination. Dennis has presented 28 cases of patients on whom vagotomy was performed for colitis or enteritis with improvement in 16. There were 3 deaths, and 1 patient was worse following operation.

Dennis has observed that under emotional stress the gastric mucosa and, in fact, the mucosa of the entire gastrointestinal system becomes hyperemic, especially in ulcerative colitis patients. With the proctoscope in place he has been able to demonstrate that when a patient becomes psychically upset there is definite reddening and hyperemia of the rectal mucosa. Following vagotomy this hyperemia does not occur. In general, there has been a considerable slowing in the rate of passage of fecal matter through the intestinal tract following vagus resection. Because of the definite number of ulcerative colitis patients who are not helped or are made worse by vagotomy, there is and should be considerable hesitancy in employing this procedure generally in all cases of the disease. Dr. Brian Blades [7] recently operated upon a patient with ulcerative colitis, performing a crushing of the vagus nerves in the chest, and obtained marked improvement. Insulin tests following the vagus crushing showed complete interruption of the nerve fibers. Three or 4 months later symptoms reappeared, and the insulin test showed that a regeneration of vagus fibers had occurred. It is now contemplated to perform a complete vagotomy in this patient. Dr. Blades has recommended that all patients with ulcerative colitis in whom vagotomy is contemplated should be treated first by vagus crushing, later by complete vagotomy. Although this necessitates a second operation, it may prevent permanent exacerbation of the disease in those individuals who do not respond well to vagus interruption.

SUMMARY

Surgical treatment in ulcerative colitis is of two types, (1) ileostomy or ileosigmoidostomy followed usually by resection of the diseased portions of the colon, and (2) vagus nerve resection. It seems probable that when more is known of the etiology of this disease we shall be able to define more sharply those cases which can be treated by the psychiatrist, internist and surgeon. We also shall be able to determine which of the surgical cases will be benefited by vagus nerve resection and which by short-circuiting operations and resections. Until that time comes, however, we must rely upon early medical-surgical consultations and upon careful evaluation of the individual case.

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AVULSION FRACTURE OF THE TIBIAL SPINE

Report of a Case with Improved Surgical Treatment

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FRACTURES of the tibial spine are occasionally observed as a result of great violence applied to the knee with unusually severe stress on the cruciate ligaments. They are often seen combined with fractures of the tibial condyles.

The mechanism of injury is explained by Watson-Jones[1] as most frequently a blow to the front of the flexed knee joint, driving the femur backwards on the fixed tibia. Another accepted explanation is a rotation movement in the knee joint as the foot strikes the ground with the knee flexed, similar to that producing tears of the semilunar cartilages.

Fractures of the tibial spine are infrequent. Clarke[2] observed only 12 cases in 5,840 fractures reviewed in England. Barr[3] had but 4 cases among 4,390 fractures treated at the Massachusetts General Hospital, and Koch[4] found only 6 cases in 59 intra-articular knee joint fractures over a 10-year period.

The usual type of fracture consists of avulsion of the base of the tibial spine, or of a portion thereof, at the attachment of the anterior cruciate ligament, with or without partial rupture of the ligament itself. The diagnosis generally is not difficult when there is a history of severe direct trauma or wrenching of the knee, resulting in immediate painful motion and weight-bearing, instability, and a swollen knee. Examination reveals a rapidly accumulating joint effusion or hemarthrosis, limited extension of the knee with the joint held in partial flexion, firm bony block to attempts at full extension, and local tenderness either anteriorly or posteriorly. Although there is definite anteroposterior instability of the joint, this is usually difficult to demonstrate because of severe pain with attempted joint motion. A tear of the tibial collateral ligament also occasionally accompanies this lesion. X-ray examination confirms the diagnosis, although oblique views may be necessary to clearly demonstrate the tibial spine injury.

Treatment of fractures of the tibial spine is not generally agreed upon. The milder injuries are best treated by prolonged immobilization in plaster followed by physical therapy and intensive quadriceps exercises, which usually results in satisfactory function. In the severe cases many authorities advocate closed reduction by manipulation under anesthesia. However, this is exceedingly difficult, since exact anatomic repositioning of the detached fragment is required to achieve a good stable knee with full motion. With gross displacement of a large fragment this can only be secured by open reduction and internal fixation.

Guttman[5] reported a rather unusual complication in a case seen several years after conservative treatment. An overgrowth of the detached fragment with secondary hypertrophic changes of the margins of the tibial plateau had produced traumatic arthritis with a bony block to full extension and considerable discomfort; excision of the fragment resulted in return of satisfactory function. Such sequelae can be prevented by exact repositioning and firm fixation of large detached fragments or excision of smaller ones.

In the case to be described an unusually large conical plug of bone ($1\frac{1}{2}$ inches in diameter, $\frac{3}{4}$ inch in length) was avulsed from the tibial plateau without rupture of the anterior cruciate ligament. Neither the standard textbooks on fractures nor recent literature describe an avulsion injury of this type. Because of its apparent rarity and the excellent result obtained with an improvised operative procedure, the following case is believed worthy of presentation in detail.

REPORT OF CASE

A. B., Case No. 9366, a 28-year-old white male student at the University of Maryland, was admitted to Doctors Hospital on November 10, 1947 because of severe pain and disability of the right knee of 2 hours' duration. The patient stated that he had been playing football on the University campus when he twisted his right knee. There was immediate pain in the knee, inability to bear weight, and inability to walk without severe pain. The past, personal and family histories were noncontributory. When seen 2 hours after his injury the patient was in acute distress, with severe pain on any attempted motion or weight-bearing on the right knee. The knee was moderately swollen and tense, with a definite joint effusion. No definite crepitus could be elicited because of severe pain with attempted motion. There was definite tenderness over the posterior aspect of the knee. Physical examination was otherwise normal. A blood count and urinalysis were within normal limits.

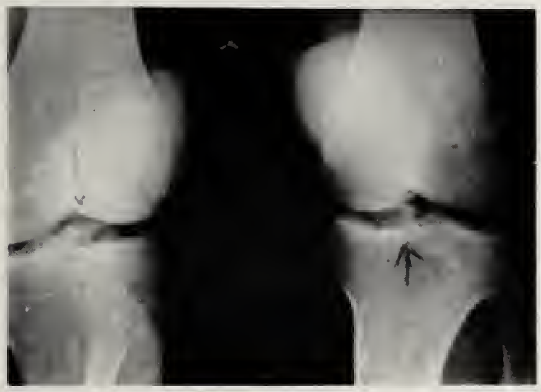

FIG. 1. Oblique views, right knee, preoperative, demonstrating the avulsed intra-articular fragment in region of tibial spines.

X-ray films, including anteroposterior, lateral, and right and left oblique views of the right knee joint, revealed an intra-articular fracture of the medial tibial condyle, with a triangular fragment of the posteromedial portion raised from the tibial plateau, disrupting the normal contour of the joining surface (see figure 1).

A preoperative diagnosis was made of fracture, simple, medial tibial condyle, anterior cruciate avulsion type, right knee, and early arthrotomy was advised. Under sodium pentothal anesthesia this was carried out the day following the injury through a median para-patellar utility-type of incision, with a pneumatic tourniquet. Inspection of the joint revealed marked edema and hemorrhage throughout the synovial lining of the larger portion of the joint. There was a large triangular detached fragment of the medial tibial tuberosity posterior of the anterior tibial spine, completely detached from the underlying cancellous bone. The cruciate ligament was intact but was markedly relaxed because of its attachment to the detached fragment just described. The medial meniscus was not lacerated but was directly in line with the anterior border of the detached fragment. The meniscus was therefore removed to allow better exposure and because of the previous history of symptoms referable to a loose cartilage. The loose fragment measured $1\frac{1}{2}$ inches in diameter and $\frac{3}{4}$ inch in depth. It was attached laterally and posteriorly to the synovial reflections about the anterior cruciate ligaments. A transverse drill hole parallel to the articular surface was made in the cancellous bone, and no. 30 stainless steel wire was passed through the hole. Next a separate vertical incision $1\frac{1}{2}$ inches long was made over the inner aspect of the upper end of the tibia through the anterior attachment of the medial lateral ligament. Two drill holes were made obliquely upward $\frac{1}{2}$ inch apart, projecting through the fractured area of the tibial plateau, and the two ends of the wire suture, previously threaded through the fracture, were then passed through the drill holes to emerge through the inner border of the tibia. Here they were twisted together, causing sufficient pressure to pull the fragment into its anatomic position (see figure 2). The wire was cut $\frac{1}{4}$ inch long and the end turned inward toward the bone. Inspection of the joint now

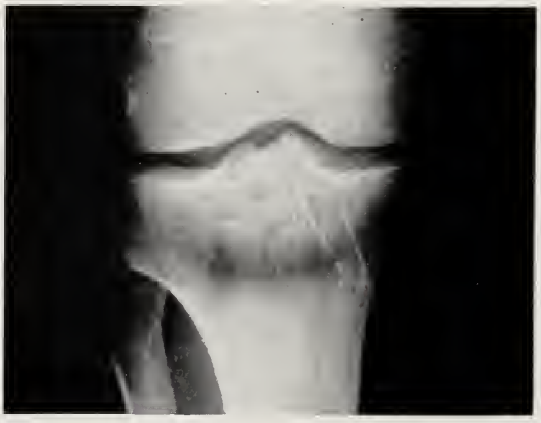

FIG. 2. Anteroposterior view, right knee, postoperative (June 30, 1948), showing firm healing of previously detached fragment, single wire suture with no surrounding reaction, intact joint space, some sclerosis of united fragment.

showed that the detached fragment had been restored to its previous position and firmly anchored into place with only a linear deformity across the fractured articular surface of the medial tuberosity of the tibia. There was only a small segment of the wire visible, and this was in the intercondylar notch, not in the weight-bearing area. The knee was extended and the joint closed in layers with continuous sutures of no. 000 chromic catgut in the synovia, capsule, fascia, and subcutaneous tissues. The skin was closed with several continuous sutures of medium cotton. A dry dressing was applied and a long leg cast applied from the toes to the groin with the knee flexed 15 degrees and the foot at a right angle. The tourniquet was removed after the application of the plaster. The patient was returned to the ward in good condition.

The postoperative reaction was uneventful and without complication. Active quadriceps exercises were instituted on the first postoperative day and encouraged daily thereafter. He was allowed out of bed on the 5th postoperative day in a wheel chair; on the 9th day walking without weight-bearing on the right was begun with the aid of crutches, and he was discharged from the hospital on the 11th postoperative day. Quadriceps exercises were encouraged continuously within the cast, in addition to unrestricted ambulation with the aid of crutches. He returned to school shortly after his discharge from the hospital.

The cast was removed on January 14, 1948, at which time the wound was well healed. Physical therapy was begun in an effort to restore motion to the knee, including the use of diathermy, whirlpool bath, and infra-red light, active and passive exercises, with and without resistance, and massage. On January 30, 1948 he was able to flex his knee to 117 degrees and extend it to 175 degrees. On February 11, 1948 X-ray films revealed the previously described fragment to be well united and in excellent position, and minimal weight-bearing with crutches was begun. The range of motion had increased to 105 degrees of flexion and 175 degrees of extension when the patient was examined 2 weeks later. Weight-bearing was gradually increased and there was a gradual but persistent increase in the range of motion in response to the physical therapy. On March 26, 1948 he was able to discard his crutches and to walk with only a cane, and with only a slight limp. At this time knee flexion had increased to 85 degrees. The office physical therapy was now supplemented by gymnastic exercises under the sypervision of a physical instructor. On March 31, 1948 the cane was discarded, and he was able to walk with only a very slight limp and without swelling of the knee. On April 14, 1948, approximately 5 months after operation, the range of motion was 85 degrees flexion and complete extension to 180 degrees. When examined June 30, 1948, he had no complaints and was able to walk without a limp or discomfort, had a range of motion of 70 degrees flexion to 180 degrees extension, no instability of the collateral or cruciate ligaments, no crepitus with knee motion, no tenderness, no quadriceps atrophy, and no discomfort with weather changes. However, there was a residual thickening of the synovial capsule as evidenced by a 1 cm. increase in circumference of the knee. X-ray films at this time revealed firm union of the previously detached fragment with slight sclerosis, and with a smooth, even articulating plateau of the tibia and no reaction about the wire suture. Gymnastic exercises were continued until the patient returned for reëxamination on October 20, 1948, some 11 months after operation. At this time there was only residual swelling of the knee; motion on the right was from 60 degrees flexion to 180 degrees extension as compared to 40 degrees to 180 degrees on the left. There was excellent strength in both hamstring and quadriceps muscles, and there was continued stability of the knee-joint ligaments. He was able to participate in moderate athletics without discomfort or difficulty. He was discharged as an excellent result. A year later (January 1950) he was examined again, at which time he reported no further difficulty with his knee; he had continued participating in all activities without restriction or discomfort. There was no instability of either cruciate or collateral ligaments, no tenderness, and no increase in joint fluid, and both knees were equal in circumference. Range of motion was equal in both knees. At this time he stated that the involved knee felt even stronger than the sound one.

COMMENTS

Avulsion fractures of the tibial plateau are uncommon among the large number of knee injuries seen in medical practice. In this report a case with an unusually large avulsed fragment attached to an intact anterior cruciate ligament is described in detail, because of the excellent result achieved by an improvised surgical technic followed by intensive physical therapy and vigorous gymnastics. Coöperation and hard work by the patient, doctor and physical therapist are required to obtain good function after severe knee joint injuries.

(*Continued on page 473*)

THE DOCTOR AS A POLITICIAN

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PERHAPS the most famous of all French Prime Ministers and one of the greatest and most enlightened rulers of the Third Republic was Georges Benjamin Clemenceau. He was born in Moulleron-en-Pareds, Vandee, on September 28, 1841. Early in life he became interested in the progressive ideas of John Stuart Mill and decided to investigate for himself how these principles might be applied to politics. He left for the United States, taking with him Mill's works to translate into French.

Clemenceau arrived in New York early in 1866 and remained in the United States for 3 years, writing postwar descriptions for the *Paris Temps*, and teaching French in a girl's school at Stamford, Connecticut. In this way he passed what he called the happiest years of his life.

In 1869 the young doctor returned to Paris and after the revolution of 1870 was nominated Mayor of the 18th *arrondissement* of Paris, which represents the famous Montmartre district. In February, 1871 he was elected as a Radical to the National Assembly for the Department of the Seine. The executions of Generals Lecomie and Clement Thomas by their mutinous soldiers on March 18, which he had been trying to prevent, brought him into conflict with the general committee of the National Guard. His arrest was ordered, but he escaped. Later he was completely exonerated.

From 1871 to 1893 he held various offices. In 1893 he was defeated for the Chamber and for a time confined his political activities to journalism. With Zola he was prominent in defending Dreyfus when he was wrongly accused of selling his country's military secrets. On April 6, 1902 he was elected Senator for the Var. He sat with the Socialists and vigorously supported the Combes ministry, his predecessor of the doctor-rulers of France.

In March, 1906 the fall of the Rouvier ministry at last brought Clemenceau to power as Minister of the Interior in the Sarrien cabinet. He supported the strike of the miners in the Pas de Calais by using troops, which led to a break with the Socialist Party. This marked Clemenceau as the "strong man" of the day in French politics.

When the Sarrien ministry resigned in October, Clemenceau became Premier of France. During 1907 and 1908 the entente with England was cemented and France played an important part in European politics. But on July 20, 1909 Clemenceau was defeated in a discussion in the chamber on the state of the navy and was succeeded as premier by Briand.

Two years later Clemenceau entered the senate and became an important member of its committee for foreign affairs. During the First World War Clemenceau began to advocate a greater army, more armaments, and a better organized medical service. He, more than any one else, pledged France to fight to the end and not to surrender under any circumstances.

Poincaré realized that Clemenceau represented the ardent wishes of all France. At the age of 76 he became Minister of War on November 16, 1917, which office he retained until November 11, 1918. It was he who made Foch Marshal of France.

From November 11, 1918 to June 28, 1919, Clemenceau, together with President Wilson of the United States, Lloyd George of England, and Orlando of Italy helped to mold a new world out of chaos. "The Tiger" was one of the greatest rulers of France and one of the most beloved.

Doctors have played a very important role in governing the English colonial possessions. Sir Charles Tupper was one of these. He was born at Amherst, Nova Scotia, on July 2, 1821 and was educated at Horton Academy. He afterwards entered upon his medical studies at Edinburgh University, where he received his M.D. and L.R.C.S. Upon his graduation in 1843 he began his medical practice, which he enjoyed for more than twelve years. However, his interests were in government rather than in medicine, and in 1855 he was elected a member of the Nova Scotia Assembly for Cumberland county.

In 1862 he was appointed, by an act of Parliament, Governor of Dalhousie University, and from 1867 to 1870 he was President of the Canadian Medical Association. Dr. Tupper was also a member of the executive council and Provincial Secretary of Nova Scotia from 1857 to 1860 and from 1863 to 1867.

He became Prime Minister of Nova Scotia and held that office until the Union Act came into force on July 1, 1867, when his government retired. He was delegate to Great Britain on public business from the Nova Scotia government in 1858 and 1865, and from the Dominion government in 1868.

In 1873 Dr. Tupper became Minister of Customs of Canada, which office he held for only a few months. In 1878 he became Minister of Public Works, and in the following year Minister of Railways and Canals. He was created a baronet in 1888, and in 1896 he became Premier of Canada. Next to Sir John McDonald, Sir Charles Tupper did more than anyone else to bring about the federation of the Canadian Provinces. He was one of the makers of modern Canada.

One of the most versatile of the doctor-statesmen was Sir William McGregor (1847–1919), who received his medical education at the University of Aberdeen. After his graduation he was appointed resident physician at the Glasgow Royal Infirmary. He did not practice his profession for any great length of time, for his interests were attracted to government. For a time he held the post of High Commissioner and Consul General for the Western Pacific. In 1888 he became Administrator of British New Guinea, and in 1895 he was made Lieutenant Governor of the Colony. Four years later he was appointed Governor of Lagos, which position he held until 1904. His ability as a governor was much appreciated, and in 1904 he was made Governor of Newfoundland and in 1909 he was appointed Governor of Queensland. He retired in 1914 when he was made Privy Councillor. He was very much interested in geography and anthropology and kept up an academic interest in medicine. He was one of the greatest colonial governors that England ever had.

One of the most enlightened rulers the Australian territory ever had was a medical man. Robert Madden (1788–1886) received his degree in medicine in 1826 and for a time had a fairly large medical practice. His interest, however, turned to colonial affairs, and in 1847 he became Colonial Secretary of Western Australia. Dr. Madden's greatest service in this post was to protect the aborigines and prevent their extinction before the onslaught of the white man's civilization.

A large percentage of British rulers in Africa were medical men. Sir James Crawford Maxwell (1869–1932), a native of Dundee, received his academic and medical education at Edinburgh University. A little later he studied law and abandoned the practice of medicine when he was called to the bar at Gray's Inn. He then went to Africa, where his first post was that of District Medical Officer of Sierra Leone. He held in rapid succession other administrative posts of importance. In the year 1927 he was made Governor and Commander in Chief of Northern Rhodesia.

Perhaps the most famous of the African medical rulers was Sir Leander Starr Jameson (1853–1917). He was born in Edinburgh and was educated at the University College Hospital, London, where he received his M.R.C.S. in 1875 and his M.D. in 1877. After acting as house physician, house surgeon and demonstrator in anatomy and showing promise of a successful professional career in London, his health broke down in 1878 and he went to South Africa. Here he settled down to medical practice in Kimberley and rapidly acquired a great reputation as a medical man, and besides numbering President Kruger and the Matabele Chief Lobengula among his patients came a great deal in contact with Cecil Rhodes. In 1888 his influence on Lobengula was successfully exerted to induce the chieftain to grant concessions to the agents of Rhodesia, which led to the formation of the British South African Company.

When this company proceeded to open up Mashonaland, Jameson abandoned his medical practice and joined the pioneer expedition of 1890. From this time on his fortunes were bound up with Rhodes' schemes. Immediately after the pioneer column had occupied Mashonaland, Jameson with F. C. Selous and A. R. Colquebon went east to Mashonaland and was instrumental in securing the greater portion of that territory, to which Portugal was laying claim, for his company.

In 1891 Jameson led his famous raid into the Transvaal with a force of 600 men. This raid was unsuccessful and he was compelled to surrender. However, he received a guarantee that all would be spared. With his officers he went to Pretoria, and after a short delay, during which time the Boer population demanded the execution of Jameson, President Kruger turned him over to the British government for punishment.

Dr. Jameson and his officers were tried in London, and Jameson was sentenced to 15 months' imprisonment. He served 1 year and was released because of ill health. He still retained the affection of the white people of Rhodesia and subsequently returned there in an unofficial capacity.

In 1903 Dr. Jameson entered the Cape Legislative Assembly as member from Kimberley. From 1904 to 1908 he was Prime Minister of the Colony. In 1911 he was knighted for his services in Africa. He died in London in 1917, and in May 1920 was laid to rest in the Matopo Hills near the tomb of his beloved friend, Cecil Rhodes.

In the United States physicians have attained high government positions in local, state and Federal service. The first native-born physician to receive the degree of doctor of medicine was William Bull, who was born in 1710 at Ashley Hall, near Charleston, South Carolina. He was graduated at Leyden in 1734.

Dr. Bull spent as much time as a legislator as he did in medical practice. He was first a member of the Commons House of Assembly under the Lords Proprietors, and later of the King's Council. Still later, from 1737 to 1743, he was the Lieutenant Governor.

So well did Dr. Bull serve as Lieutenant Governor that no less than five times did he serve as Governor and Commander in Chief of the province. These were years of increasing political tension, but Governor Bull did much to restore harmony. His predecessor, Governor Boone, had constantly been at odds with his associates. But as soon as Dr. Bull became Governor all difficulties were smoothed out. Says Johnson in his "Traditions of the American Revolution": "Governor Bull then addressed the Assembly and harmony was immediately reëstablished between the Legislature and the Executive; the liabilities of the Province paid, and peace was established in South Carolina. But not so in England as to South Carolina's affairs."

Dr. William Bull served 35 years in various capacities as a legislator and executive, and he served well during those troublesome times. However, political affairs were not his only interests. He did much for education in his native state and elsewhere. He helped to found the College of Philadelphia. He also contributed to the support of libraries and built up the educational system in South Carolina. This medical governor was one of the most capable in the early history of the United States.

In later years Royal S. Copeland served as United States Senator from New York with distinction. He received his medical degree from the University of Michigan and was in general practice several years before he started specializing in diseases of the eye. He soon attained prominence in this specialty and became Dean of the medical school of his alma mater. In addition to medicine he began to manifest an interest in public affairs, and in time he was elected Mayor of Ann Arbor, Michigan, in which capacity he served with distinction.

Finding opportunities in his native state somewhat limited, Dr. Copeland came to New York, where he became Dean of Flower Hospital and the New York Homeopathic Medical College. When John F. Hylan became Mayor of New York he chose Royal S. Copeland as Commissioner of Health. His work in public welfare attracted attention, and when he was nominated for Senator he carried off the election with ease. Dr. Copeland was elected three times, and his ceaseless activities in the Senate resulted in his sudden death at the adjournment of the 75th Congress. His activities in Federal regulation of drugs, food and cosmetics as well as his work in crime prevention are well known.

Another American physician to attain a high post in American Government was Governor Moeur of Arizona. Dr. Moeur was a country doctor when he was nominated and elected to the highest position in his state. Professional politics meant nothing to him. In fact, he stated that he did not care to be reëlected if it meant "playing politics." He was brutally frank and outspoken, and for this reason together with the fact that he did not give jobs to his political sponsors he became rather unpopular with the political machine in his state.

In the twenties two physicians served as Secretary of the Interior. Under President Calvin Coolidge Dr. Hubert Work, formerly President of the American Medical Association, served as Secretary of the Interior with great distinction. His successor under President Herbert Hoover, Dr. Ray Lyman Wilbur, also President of Leland Stanford University, conducted an extensive five-year research on medical care and costs in the United States.

One of the greatest and most famous of all American doctor-statesmen was Leonard Wood (1860–1927). Dr. Wood received his M.D. from Harvard University Medical School in 1884 and the following year entered the Army as a surgeon. He served in the war against the Apaches in the Southwest and demonstrated his great military talent for the first time. For this reason he gave up his medical post and became a combatant officer. In all his military engagements he displayed great gallantry in action. In the Spanish-American War he rose to the rank of Colonel, and with Lieutenant Colonel Theodore Roosevelt he commanded a regiment of Rough Riders which did remarkable work in helping to defeat the Spanish oppressors.

After his exploits in Cuba Colonel Wood rose to the rank of Brigadier General. At about this time he was given his first administrative post as Governor of Santiago. In this capacity he helped to modernize Santiago and improve the living conditions of the natives. He continued to rise in rank and became a Major General.

General Wood's second governing assignment was as Governor-general of Cuba, the island he helped to free from Spain. His work during the formative period of the new republic was exceedingly important, and Cuba's rise to a self-sustaining nation was in a great measure due to Dr. Wood's wise administration of her affairs.

In 1910 General Wood was made Chief of Staff of the Army. He went with the armies overseas and saw action in France. Early in 1918 he was wounded in battle, one of the few generals who actually went with men into the thick of fighting. After the War he was appointed to the post of Governor-general of the Philippines. Governor Wood was the greatest governor-general that the United States had ever sent to govern the island possessions. Dr. Wood was also the first physician in the United States to be mentioned as a presidential possibility. But rumors of a brain tumor began to spread about, and this helped to eliminate him. General Wood was not a good administrator but one of the really great soldiers in the Army of the United States.

The first President of the Chinese Republic was a doctor-statesman. Sun Yat-sen (1866-1925) was the son of a poor Christian Chinese peasant. In 1891 Sun entered upon a medical career at the newly founded medical school in Hong Kong, of which he was the first graduate in 1894. Sun Yat-sen very early became involved with the welfare of his country. One year after his graduation he was one of the participants in a revolutionary plot and was fortunate to escape with his life.

Soon thereafter he embarked on a world tour to induce emigrant Chinese to help revolt against the monarchy and to secure funds in Europe and America for the same purpose. The Chinese government offered a reward, which in time amounted to half a million dollars, to anyone who would get Sun into their hands, dead or alive. He was becoming a real menace to the monarchy, and the Emperor was really frightened.

On a Sunday evening in October, 1896, Sun Yat-sen was kidnapped in a London street by the agents of the Chinese government. He managed, however, to get a message through to his old friend, Dr. Chantlee, who with great difficulty effected his release.

For 17 years, from 1895 to 1912, Sun Yat-sen's life was in constant danger because of his revolutionary activities. In 1905 he returned to Peking after a second world tour. He inaugurated the United Revolutionary Party of China, and in 1911 this party attained its first objective in the overthrow of the dynasty and the establishment of the Republic of China. Sun Yat-sen, the doctor-revolutionist, took office as the first President of the Chinese Republic on January 1, 1912. He was the greatest leader that modern China ever had. He died of cancer, March 12, 1925, at Peking.

The doctor-statesman has established an enviable record in almost all instances when he has had an opportunity to take the reins of government. The medically-trained mind, being cognizant of the needs of the people, whom he has been taught to serve, has, unlike the "garden variety" of politician, brought about changes for the better and in the interests of all the people.

President's Page

WAR IN KOREA

It is difficult to consider local problems when our Armed Forc are in actual combat. Korea sounds like a very remote and isolat spot, yet we all feel the impact of the evil forces in the backgroun and the special significance of our own Nation's participation in a hot fighting war. No one can determine the course of future events. What we all must do is try to keep level-headed, but at the same time roll up our sleeves, spit on our hands, and say well, if this is it, so be it.

Our Medical Society as a unit and as individuals served willingly and well in the last World War, and in the wars before it, and we stand ready to serve again.

Wm. M. Ballinger

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RECENT ADVANCES IN CANCER

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THE ROLE OF THE CANCER CLINIC IN THE CHEMOTHERAPY PROGRAM

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Today, chemotherapy of cancer is not to be considered as curative in any instance. It is extremely important to realize this since a premature decision that a lesion is inoperable can well deprive a patient of a reasonable chance for permanent cure. Decisions as to operability must always be made by a competent surgeon, and in case of doubt, by more than one surgeon, each arriving at his decision independently. This is sometimes forgotten, as, for instance, in the treatment of prostatic cancer, which can so frequently be benefited by the use of estrogens.[1] There is a tendency to forget that this is only palliative treatment, and that an adequate surgical removal of the prostatic cancer before metastasis has occurred is the only curative procedure. All patients with prostate cancer must have competent urological opinions before therapy is undertaken. The same is true in cases of ulcerative breast cancer in the elderly female patient. Because the administration of estrogens frequently results in dramatic healing of the local ulceration,[2] there is a tendency to forget that the only cure for breast cancer is an adequate operation and that age alone is no contraindication to such an operation.

In addition to determining operability it is just as important to establish the diagnosis unequivocally. This requires not only that records be reviewed, but that the histologic diagnosis be confirmed by review of prepared slides, or by preparation of new slides from freshly taken biopsy specimens. If this is not done, an occasional patient will be denied possible curative therapy, or an occasional dramatic effect following chemotherapy will be difficult to interpret, leaving doubt not only as to the efficacy of the treatment, but also as to the prognosis. An unconfirmed diagnosis of incurable cancer remains a constant source of anxiety to the patient, even though the signs and/or symptoms which led to an opinion may no longer be present.

The necessity for limitation of present methods of chemotherapy to inoperable and incurable cancer is apparent. To assure this the cancer clinic is staffed by competent men in the specialties concerned and conducts frequent clinical conferences at which controversial cases are presented for open discussion. The insistence upon limitation of long-term chemotherapy to patients with inoperable and incurable cancer can and does delay the evaluation of new methods and the use of drugs. This delay can be lessened by encouraging the development of a limited number of clinical units to conduct such evaluation and by referring suitable cases to them for care. The present methods of treatment of advanced cases are so inadequate and unsatisfactory that further study is imperative. Only by a concentration of cases can any one group have access to a sufficiently large number of cases to permit accurate evaluation of results.

A recent article by Lees and Lees[3] points out some of the difficulties encountered in the evaluation of cancer treatment. It should be read by any physician who accepts responsibility for the treatment of cancer patients. These authors point out that, if they have "tended to emphasize the difficulties of the evaluation, it is because measurement of the effect of cancer treatment is, in fact, very difficult. It is so difficult and also so important that it is worthy of far more study than has been given to it.

"As things are, it is possible for sensible men to hold reasonably very different opinions on the value of cancer treatment. It is hardly too much to say that such opinions are largely a matter of temperament—stretching from the cynical to the enthusiastic.... The onus of proving that treatment of any form of cancer is so effective clearly rests on those who make these claims."

The methods of evaluating the effectiveness of a chemotherapeutic agent in the treatment of cancer are generally statistical ones. Considering that the number of accessible, palpable new cancers which will be discovered in the District of Columbia during the ensuing year is estimated at 429[4] and that a majority of these will be early curable lesions not suitable for chemotherapy, one can readily see that the number of suitable cases in any one anatomic region will be small. If these are much further subdivided, no series which is large enough for statistical analysis will be accumulated by any one group.

If a cancer clinic is to serve as the nucleus for not only routine clinical cancer care but for clinical investigation into the many facets of the cancer problem, including the evaluation and development of cancer chemotherapy, then it is also necessary that each cancer clinic develop an acceptable program which holds some promise of improving treatment of a considerable number of the varied clinical types of advanced cancer. As an example, the following outline represents the program of the George Washington University Cancer Clinic and indicates the type of agents under study and the cases which are acceptable. Complete methods are not given because space is limited. It must be emphasized that this program is being outlined as the example with which the author is most familiar and that other excellent programs are being conducted in other cancer clinics.

The types of therapy under investigation are being evaluated by members of the Cancer Clinic staff, and only a very minor portion represents the work of the author. Specific investigators will not be identified with any project.

NITROGEN MUSTARD (HN_2) [METHYL-*bis*(β-CHLOROETHYL)AMINE HYDROCHLORIDE]

This agent is being used in the treatment of those types of cancer in which good therapeutic results can be anticipated in a reasonable number of cases, namely, Hodgkins disease,[5] reticulum-cell sarcoma,[6] lymphosarcoma,[6] and bronchogenic carcinoma.[7] In the treatment of these cases the drug is given by the intravenous route in most instances. The limiting factors as to dosage are the toxic effect on bone marrow and probably an interference with normal electrolyte balance. Studies are in progress as to methods for counteracting these toxic effects in order that larger doses can be administered with safety.

HN_2 is also being used in the treatment of a miscellaneous group of tumors, such as carcinoma of the nasopharynx, fibrosarcoma, rhabdomyosarcoma, etc. The drug is given by the intravenous route in most instances. Studies are being conducted to determine the type of case which can be predicted to respond to HN_2, and the effect of varied dosage schedules.

HN_2 is also given by intra-arterial injection. By this method it is possible to produce within the region supplied by a given artery a more intense reaction than can be produced by intravenous administration. In carrying out this procedure it is necessary first to perform a relatively minor surgical operation for insertion of a polyethylene cannula into the artery into which repeated injections will be made over a period of days.[8] It has been possible to produce symptomatic improvement and objective evidence of varying degrees of tumor destruction in cases of cancer of the tongue, accessory nasal sinuses, tonsil, oral cavity, mandible, uterine cervix, rectum and extremity. Symptomatic improvement has also followed therapy of 2 brain tumors. The effect on the cancer can be very similar to that produced by therapeutic irradiation and can be measured by gross and microscopic changes. Further studies are being conducted to determine optimum dosage schedules and methods for potentiating the effect, to develop methods for treatment of tumors in other regions, and to study the effect of combined local chemotherapy and local irradiation.

ESTROGENS

The administration of estrogens is effective in the control of local ulceration and soft tissue invasion of breast cancer primarily in women over 60 years of age. Although side-effects are few, an increase in blood volume can occur and may be a factor in precipitating cardiac decompensation in borderline cases. Whereas the results of treatment are often dramatic and of comfort to the patient, it must be emphasized that the most important feature of the treatment is the opportunity to study the patients during treatment in an effort to determine the mechanisms involved. Studies are in progress to determine optimum methods and routes of administration, and to define the physiologic changes which occur during therapy and the effect on the tumor.

The administration of estrogens (or removal of the functioning testes[9]) is effective in the treatment of cancer of the male breast. Results are sometimes even more dramatic than those seen following use of estrogens in the treatment of breast cancer in the elderly female. Study of the changes which occur is of great importance and can be done only by conducting treatment under controlled circumstances. Considering that the incidence of male breast cancer is about 1 per cent of that of female breast cancer, it is evident that few such cases will be found in the community within a given year. This emphasizes the need for getting the maximum information from each available case.

The use of estrogens (or removal of the functioning testes) in the treatment of cancer of the prostate is well known. Present methods of endocrine therapy are dramatic but purely palliative, although it is conceded that life can be prolonged in many instances. Because these cases, when advanced, often have an increase in concentration of acid phosphatase in the blood, and because a measure of the changes in the blood levels during the course of therapy seems to be a good index of the effect of therapy on the tumor, these cases can frequently supply a wealth of information of great value if studied under controlled conditions. Studies are in progress to determine optimum dosage, the best method of administration, and the mechanisms involved in the therapeutic response.

PROGESTERONE

The administration of progesterone to patient with carcinoma of the uterine cervix has been followed by a regression in size of the local lesion, as well as other changes.[10] This has been an important observation, even though the initial studies have not been of sufficient duration to allow evaluation of the effect on the complete course of the disease. These changes have been seen in advanced cases with a previous course of X-ray therapy, as well as previously untreated cases.

In addition to this direct therapeutic effect the administration of progesterone during the preoperative preparation of certain of these cases has resulted in changes within pelvic structures which have made subsequent radical surgery easier to perform.[11] Hence, this method of therapy must be evaluated in order to determine its usefulness as an adjunct to present curative methods and as a method of palliation for advanced cancer. Studies are in progress to determine optimum dosage, the best methods of administration, and the mechanisms involved in the response.

TESTOSTERONE

The administration of testosterone has been helpful in the treatment of advanced breast cancer in the female.[12] Although best effects are observed on bone metastasis in younger women, an occasional effect is seen on soft tissue lesions and in older women. It is not possible to define with accuracy the type of patient who will not be benefited, and a clinical trial is usually required. Harmful effects are sometimes seen, such as an elevation of blood calcium levels sufficient to produce toxic symptoms. Also less harmful but more annoying effects occur, such as hirsutism, acne, voice changes, and weight gain. These vary in their extent in each patient.

Further study may result in the accurate definition of those patients who can be expected to respond and those who react adversely, possibly pointing the way to a physiologic classification of breast cancer patients. However, such studies require that observation be made on a large group of patients under controlled conditions. Such observation may also furnish new facts as to mechanisms involved.

URETHANE

This has proved of limited value in the treatment of multiple myeloma[13] and occasional cases of leukemia. Although symptomatic improvement is seen, it is not believed that the survival time is increased. The limiting factor in treatment is the toxic effect primarily on bone marrow. Studies are in progress on methods for decreasing toxicity by the use of specific antidotes. Again, the rarity of suitable cases makes such studies difficult.

RADIOACTIVE ISOTOPES

Although perhaps not always considered as chemotherapeutic agents, these substances are best included. Other methods of radiation therapy usually require the use of expensive, large machines and hence have tended to become the basis for a medical specialty. The isotopes are less adapted to such procedure and more readily incorporated into present medical and surgical procedures.

Although many radioactive isotopes are available, comparatively few have any well established therapeutic indications; others have more important usages, but purely as tools in the investigation of specific problems.

Radioactive phosphorus (P_{32}), given either orally or intravenously, is of minimal value in the treatment of any form of cancer, save for a few cases of leukemia.[14] Its chief value is as a research tool. Studies are in progress to evaluate its usefulness as a method for measuring the effectiveness of other methods of cancer therapy.

Radioactive iodine (I_{131}) given orally is of limited value in the treatment of cancer. However, in those cases of thyroid cancer in which the tumor can be demonstrated to pick up the iodine selectively it is often dramatically effective.[15] The number of suitable cases is small. Again, while the administration of the drug is a simple procedure, the important feature of the treatment is the opportunity to study the functional activity of the tumor and the patient. By the study of a large group of cases it should be possible to further improve the effectiveness of the treatment. Some methods have already proved to be of value, such as pretreatment thyroidectomy.[15] The evaluation of these cases requires the coöperation of a group of specially trained physicians and technicians and the availability of a suitable number of cases.

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Editorials

THE DISASTER SERVICES OF THE AMERICAN NATIONAL RED CROSS

In a recent announcement the National Security Resources Board defined broadly the role of the American National Red Cross in the planning and operation of civil defense. Fortunately, this action represents no mere blueprint of services which the Government hopes the Red Cross might be able to render in case of a national emergency. It represents, rather, a recognition of the actual experience of the Red Cross in rendering such services in peacetime and of its ability to expand them as necessity may require.

But there is a danger also in this ready recognition—the danger of taking the Red Cross for granted. Too many persons in this country are prone to look upon the American Red Cross as an agency located in Washington. The fact is that through its 3,745 chapters and 4,668 branches it is located in every community in the country and that only in so far as the citizens in each community actively support their chapter with their contributions both of money and personal services will the Red Cross be strong throughout the Nation.

Many years ago Miss Mabel Boardman was asked: "How long does it take the Red Cross to reach the scene after a disaster strikes?" She replied: "No time at all; the Red Cross is always there." That is true; but the serious question that must always be asked is: "Will the Red Cross be there effectively?"

A year or two ago, at one of the national conventions of the American Red Cross, a chapter chairman made a startling confession and a moving declaration of repentance. He had lived for a number of years in a community which, according to the oldest inhabitants, had never been visited by a serious fire or by flood or tornado. In addition to being chairman of his chapter, he had assumed the chairmanship of the disaster committee, but it was a paper committee only, for he was the sole member. Then suddenly one day, without warning, his community was struck by a violent tornado. The windows of his office were shattered, and to escape the flying glass, he retreated ignominiously to a haven of safety under his desk. When the storm had passed, he made his way to the street. As he there surveyed the scene of utter desolation, with most of the buildings demolished, he suddenly realized that as chapter chairman and disaster chairman he was supposed to do something, for which, through patent negligence, he was totally unprepared. He was rescued from his predicament only by the prompt intervention of the neighboring chapters, which fortunately had taken more seriously their obligation to be prepared.

This incident points the obvious moral that even though a community has never been visited by a natural disaster or is not considered a likely target in case of war, it should be prepared, not only for its own sake, but also for the purpose of helping its neighboring communities. In fact, in certain types of disaster, the stricken community itself is frequently paralyzed for a time, regardless of local preparedness, and prompt emergency assistance can be expected only from those neighboring communities that are unaffected and from one of the headquarters offices of the national organization.

To prepare itself for action in case of disaster,

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia

a chapter is expected to organize and maintain a committee on disaster relief which shall survey disaster hazards; review and inventory local resources of personnel, equipment, and supplies; secure coöperative understandings with local governmental and private agencies; and develop an organization, with prearranged methods of procedure, that will be ready to operate immediately upon the occurrence of any emergency. For the several phases of preparedness and operation appropriate subcommittees are appointed. Among them are those on Survey, Food, Clothing, Shelter, and Medical and Nursing Aid. Of the last-named subcommittee the chairman is a local physician and the vice chairman a local nurse. The committee and its subcommittees are supposed to meet with sufficient frequency to keep the machinery in condition.

In addition to the organization and training of disaster relief committees, many chapters have made available to the people of their communities courses of instruction in first aid, accident prevention, water safety, home nursing, and nutrition, and have trained volunteer nurse's aides, canteen workers, and other volunteers for certain specified duties. These activities have contributed in no small measure to disaster prevention, preparedness, and relief, the three broad types of activity in the disaster field that were enjoined upon the American Red Cross by the Congressional charter. Then too, since the War, several hundred chapters have become participants in the Red Cross National Blood Program, which, in an emergency, is capable of prompt expansion and of rapid integration with other blood procurement facilities.

These very measures of preparedness for peacetime disaster, the Federal Government has asked the Red Cross to apply to civil defense, and the President of the Red Cross has so agreed. This means that the national organization and the chapters stand ready to assist to the extent of their ability in the following specified phases of the program of civil defense:

(a) Training civil defense workers, as well as the general public, in first aid;
(b) Training volunteers to qualify as nurse's aides and in home care of the sick and injured;
(c) Providing food, clothing, and temporary shelter on a mass care basis in a period of immediate emergency;
(d) Participating in a wartime Nation-wide blood program; and
(e) Making available chapter resources of volunteer personnel, equipment, and supplies for utilization in civil defense activities.

This is obviously a serious responsibility that the Red Cross has assumed. No chapter will be in a position to carry it out if it is not adequately prepared first for peacetime disaster relief. It is therefore sincerely to be hoped that all citizens will feel it to be their patriotic duty to inquire both as to the state of preparedness of their respective chapters and as to how they themselves personally may help their chapters and their communities attain the goal desired.

G. Foard McGinnes, M.D.
Vice President for Health Services,
The American National Red Cross

AMERICAN LEGION HEALTH AND WELFARE PROGRAM

One of the more readily understood features of The American Legion and the American Legion Auxiliary is their real interest in preventive as well as curative therapy programs. This interest has naturally grown from experiences gained in serving sick and disabled veterans and the families of those who are hospitalized or otherwise removed as breadwinners. This experience started with the organization of The American Legion shortly after the close of World War I and has grown as the organizations have grown.

One of the first tangible actions in behalf of hospitalized veterans was the purchase of the initial supply of radium for the Veterans Hospital at Hines, Illinois, where malignant cases were being treated. This was in 1928.

Later on, in 1943, the Legion and its Auxiliary joined in a Nation-wide campaign in behalf of veterans suffering from tuberculosis. The main concern was then, and still is, to have veterans afflicted with this trouble remain in hospitals or under medical care as long as deemed necessary by attending physicians. The welfare of the veteran as well as that of his family and community is at stake in these cases. Reprints of suitable literature were financed and distributed by the organizations. It may be that the current situation in this field will revive a Nation-wide campaign.

By convention action five years ago The American Legion and its Auxiliary made available a fund of $50,000 for the study of rheumatic fever and rheumatic heart disease. This fund was administered by the American Heart Association. It not only financed two fellowships in heart disease research but also stimulated Nation-wide campaigns which brought in millions of dollars for a greater and expanded program in the field of heart disease. This work is still progressing and growing.

In May of this year The American Legion voted to make available the sum of $25,000 to start a national program in mental health. This sum is to be allocated to a new merger of three associations now in the field and is to be used for the purpose of stimulating a program of education and establishing community clinics.

Comment should also be made on the work of the Child Welfare Commission in helping underprivileged and disabled children of this country. That has been and continues to be one of the outstanding organized child welfare efforts of The American Legion.

This work in which The American Legion is engaged is not necessarily confined to veterans but every Post is vitally interested in the health of its own community. There is, however, a real need for more doctors to become interested in the work of the Legion, as all medical matters can be better handled with the coöperation of physicians and the Legion membership in their community.

The health programs of The American Legion and its Auxiliary are rendered more effective because of the medical consultants on the staff of the National Rehabilitation Commission, and because of the National Medical Advisory Board. The outstanding physicians, surgeons and dentists who serve on the Board are able, through practical experience, to give sound appraisal of health measures of various kinds. These lay organizations, with their Nation-wide coverage, are thus able to offer their membership a real opportunity for leadership and guidance.

ALBERT N. BAGGS, M.D.
Executive Secretary,
National Medical Advisory Board,
The American Legion

HEALTH INSURANCE AND MENTAL ILLNESS

During the past few years thoughtful citizens have had good reason to ponder what Government medicine would mean to them as patients. As doctors we have considered the problem not only as citizens but also as members of the profession most deeply affected by such legislation. Each of us brings to a consideration of the problem the special viewpoint of his own professional situation, be it that of general practitioner, public health official, clinical pathologist, ophthalmologist, or psychiatrist. We have in common general views regarding its effect on the health of the Nation and we study each proposal in the light of our own individual status in the profession of medicine.

The following comments are from the viewpoint of an individual who spent three years in general practice and the last twelve in the specialty of psychiatry, and one who has always been interested in the political and social scene as well as in his professional work. In discussing various proposals for compulsory health insurance with my nonpsychiatric colleagues, I am impressed by the fact that they are unaware that legislation embodying these proposals specifically excludes all mental and emotional illness, and this in the face of the fact that more than half the total number of hospital beds in the United States are devoted to patients hospitalized because of mental illness. Also excluded are individuals suffering from tuberculosis, who occupy about six per cent of the hospital beds in the United States. The explanation given by advocates of the proposed legislation is that mental illness and tuberculosis are "state problems." Why are mental health and tuberculosis "state problems" and other illnesses a Federal problem?

If the proposed Government legislation avoids the problem of mental illness, how is it being met by voluntary health insurance plans? A recent survey indicates that over two thirds of all Blue Cross Plans in operation make some provision for hospital care in mental illness. It is, of course, true that in many instances the benefits are minimal.

Psychiatrists are generally in agreement that both emotional and economic dependency are handicaps to recovery in illness. The participant in a voluntary health insurance plan is well aware of his partnership basis. It seems illogically optimistic to expect that citizens dependent on a Federal health insurance plan would still keep in mind their participating status as taxpayers. Until such time as proponents of Government-sponsored health insurance present legislation which will offer complete protection to the public, including coverage for mental illness and tuberculosis, the public is being misled. Until they can adequately demonstrate that it is to the country's benefit and not to its detriment to foster emotional dependency among the citizens, there will be legitimate basis for opposition on the part of physicians and laymen interested in the survival of the independence which is our American heritage.

Robert T. Morse, M.D.

THE MILK STRIKE IN RETROSPECT

The recent milk strike gave this Society an opportunity to fulfill its public service duties by coöperating with civic authorities in arranging for emergency milk supplies.

However, a little forethought on the part of both parties to the strike would have obviated a great deal of needless last-minute wrangling about emergency measures. The D. C. milk laws being what they are, both management and Union officials must have been well aware of the consequences of a milk shutdown; yet, neither side volunteered any worthwhile emergency plan until forced to do so by the District Commissioners' action.

We do not presume to comment on the right of a labor group to strike in support of wage demands; such right is established by law. But a strike which chiefly affects infants, the ill, and the infirm unjustly and unnecessarily endangers public welfare unless adequate preparations are made in advance.

Strikes involving fuels, foods, medical supplies, and essential public utility services always punish the community rather than the management against which they are directed. They do not seem to us to be a means for winning friends for either side of the controversy.

Allan B. Coleman, M.D.
Chairman, Subcommittee on Child Welfare

THE CARE OF HAND INJURIES*

VI. Open Fractures

Major wounds of the hand may be caused by crushing or tearing injuries, injuries from explosions, or by the impact of foreign bodies. Such wounds may involve damage to skin by burning or avulsion, laceration of soft tissues, and open injuries of bones or joints. The purposes of early treatment are:

1. Relief of pain and shock
2. Arrest of hemorrhage
3. Protection against infection and further injury
4. Removal of foreign bodies and dead tissue
5. Conservation and restoration of damaged structures
6. Early healing
7. Restoration of function.

A. First-aid treatment

1. Application of voluminous sterile dressing without interference with the wound, the hand being placed in the position of function.
2. Hemostasis by pressure gently applied to such a dressing. A tourniquet is rarely needed, but may be employed briefly to check brisk, continuing blood loss.
3. Appropriate treatment for shock and pain.
4. Splinting of the hand, in initial dressing applied as above, in position of function for transportation to adequate surgical facilities (see Article II published in November 1948).

B. Definitive treatment

1. If bones or joints are thought to be involved, preliminary X-ray films are made without disturbing the initial dressing.
2. Patient is treated systemically for pain, shock and hemorrhage; antibiotics and tetanus antitoxin (or toxoid booster) are administered, and the patient prepared for operation.
3. In operating room, with patient anesthetized, dressing is removed.
4. With the wound carefully protected, the arm, forearm, and hand are scrubbed, shaved and draped.
5. The skin wound and the area about it are carefully and gently cleansed with soap and water or mild detergent (no antiseptics) and the entire wound examined. Bleeding vessels are ligated.
6. Foreign material and devitalized tissue are accurately trimmed away. This procedure aims at thoroughness, but must strictly conserve the maximum of viable tissue. It is particularly important to preserve skin and all bone fragments which are not completely free and displaced.
7. Repair of soft tissue injuries is governed by criteria of length of time since injury and of the degree and nature of contamination (see Article IV published in October 1949). When conditions are favorable (i.e., in relatively clean wounds not more than 3 or 4 hours old), initial repair may be effected within limitations described in Article IV. Even in unfavorable cases severed nerves should be united if possible, or at least identified by long sutures of stainless steel.
8. Dislocations of joints, if open in the wound, are reduced.
9. Bone fragments in the open wound are restored as nearly as possible to normal position but without fixation by foreign material. In some instances the employment of stabilization with a minimum of stainless steel wire is justifiable if required to maintain reduction.
10. Maintenance of reduction of open fractures may usually be obtained by skeletal traction or appropriate splinting (see Article V published in March 1950). If required, pins for bone fragment fixation or skeletal traction are applied as there described.
11. Maximum skin closure is effected (see Article IV). Particular care is taken to cover bones, joints, tendons and nerves. Where required, pedicle skin grafts (local or from abdominal wall) may be used for coverage unless established or inevitable infection forbids.

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* This is the sixth of a series of articles on the Care of Hand Injuries. This material is prepared by the American Society for Surgery of the Hand and is distributed by the Committee on Trauma, American College of Surgeons, through its Regional Committees.

12. Pressure dressing is applied and the hand splinted as required for optimum control of its repaired injuries, approximating as closely as possible the position of function (see Articles IV and V). Flat splinting is to be avoided. Uninjured parts of the hand should be left free for movement. The hand is kept elevated.

C. Subsequent dressings

These are managed with regard to the following factors named in the order of their importance: (a) control of infection, adequate drainage; (b) establishment of bony union and joint healing; (c) early completion of skin coverage and healing.

1. The establishment of infection in the wound may require early and frequent dressings to insure its control. These should be done under aseptic conditions and in such manner as not to disturb the corrected position of injured bones or joints.
2. Large skin defects should be covered by grafting at the earliest moment compatible with the maintenance of position of corrected bone and joint injuries (see Article III published in June 1949).

D. Restoration of function

Following healing of skin and soft tissues and firm union of bony structures, as much function as possible should be restored by directed active use of the hand, therapeutic exercises, and occupational therapy.

Reconstructive surgery is often required after such injuries to permit maximum restoration of function. Such reconstruction will be less extensive and less formidable if the early management of the injury is judiciously and carefully carried out.

MEDICAL SERVICE INCREASES DUES AND PRORATES PAYMENTS

Since the first subscriber to Medical Service of the District of Columbia was enrolled in April, 1948, officers and Trustees of the Plan have engaged in a continuous study of conditions and needs as they exist in Washington in order to accumulate the information needed to make such a prepayment plan work. Data applicable to other metropolitan areas were of little value here.

To collect and evaluate such data as the extent of subscribers' needs for the services the Surgical Service Plan offers, the cost of providing those services, and the relationship of cost to income received from subscription charges has been a time-consuming task. These facts and figures indicated a need for additional contract and underwriting controls to protect the Plan against adverse selection of risks, and for an adjustment of subscription charges that would provide additional income to pay for the professional services of physicians. For some months the cost of these services had exceeded income and the Plan had experienced operating deficits.

To remedy this situation, Dr. Frank D. Costenbader, President of Medical Service, acting for the Board of Trustees, announced on June 21 that protective controls had been instituted and that rates for the Individual Contract would be increased from 80 cents to $1 a month and that rates for the Family Contract would be increased from $2 to $2.70 a month, effective with collections in September.

Dr. Costenbader also announced that payments to physicians would be prorated as a means of preventing an actual deficit until such time as income and outgo are in balance and the Plan is again operating on a sound financial basis. Dr. Costenbader cited the declared intention of the Board of Trustees to repay physicians in full as soon as the Plan is able.

The response from both the public and the doctors has been sympathetic and understanding. As Dr. Costenbader pointed out, the problems confronting the Plan are not alarming; however, they called for action to provide permanent stability. On the basis of the experience gained during the last two years and the other information on which the Trustees based their action, there is sound reason for believing that Medical Service is entering upon an era of expanding service to subscribers and physicians and that the Plan will enjoy lasting stability.

Our Living Past Presidents

ARTHUR CARLISLE CHRISTIE, M.D., F.A.C.P., President, 1931–32

Dr. Arthur Carlisle Christie was born, December 29, 1879, at West Sunbury, Pennsylvania, the son of Dr. Milton H. and Harriet Rhodes Christie. He was educated in the public schools of Corry, Pennsylvania, and studied medicine at the Cleveland College of Physicians and Surgeons (now incorporated in Western Reserve University Medical School), graduating from that institution in 1904. Following in the footsteps of his father, he began the practice of general medicine in Clymer, N. Y., serving a large rural community. After a brief period in general practice, Dr. Christie entered the U. S. Army Medical School in Washington, D. C. and graduated as a First Lieutenant in 1907. He served his country in the Philippines and at various posts in the United States.

It was during his service at Columbus Barracks, Columbus, Ohio, that he became interested in radiology, a specialty then in its infancy. Dr. Christie has often remarked that he became a radiologist "by order of the Surgeon General," for in 1912 he was ordered to the Army Medical School as Professor of Roentgenology and Operative Surgery, and he served in this capacity until 1916. During this period he published "A Manual of X-ray Technic," which became an important contribution to radiologic literature. Several editions of the manual were published and it became one of the early sources of information for those entering the then new field of medical science.

In 1916 Dr. Christie became associated with the late Dr. Thomas A. Groover in the practice of radiology, having resigned his commission as Captain in the Medical Corps of the Army. Shortly after the outbreak of

World War I he was commissioned a Major in the Medical Reserve Corps and was appointed Chief of the Division of Roentgenology, Medical Department, U. S. Army. This proved a wise choice, for Dr. Christie, with his varied experience, his courage and vision, and his outstanding ability as an organizer, accomplished during the first few months of World War I what appeared to be an insurmountable task. When Major Christie took command of the Division of Roentgenology there were no roentgenologists in the Medical Department of the Regular Army, and he faced the problem of organizing the Department and building up the Reserve Corps to provide a sufficient number of roentgenologists for an army then engaged in a world war. The story of how this was accomplished successfully would be worthy of this entire thesis. Dr. Christie guided the development of roentgenology as a medical science so well that in a few months more progress had been made than in the previous twenty-two years of its history.

During the period from May 1917 to March 1919 Dr. Christie served as Chief of the Division of Roentgenology and as Senior Consultant in Roentgenology, A.E.F. He was discharged as a Colonel in 1919 and resumed his practice with Dr. Groover at 1621 Connecticut Avenue.

In the fall of 1919 the late Dr. E. A. Merritt became associated with Drs. Groover and Christie, and the firm became known as "Drs. Groover, Christie and Merritt." Largely because of the ability, personality and guidance of Dr. Christie, this partnership made great advances in the science of radiology.

Dr. Christie gave evidence early in his medical career that he had outstanding ability as an author. Following his "Manual of X-ray Technic" he wrote numerous articles and books, not only on various aspects of radiology but also on the broader phases of medicine and its relation to the public. He has been an outstanding opponent of socialized medicine; in addition to writing books and articles on this subject he has addressed numerous audiences. One of his outstanding contributions in this field was rendered while he was a member of the Committee on the Costs of Medical Care. The first minority report, for which Dr. Christie was largely responsible, remains as a monument to his courage and vision.

Dr. Christie has been a medical educator almost continuously since his professorial appointment to the Army Medical School in 1912. He has served as Professor of Roentgenology at the George Washington University Medical School, as Professor of Clinical Radiology at the Georgetown University School of Medicine, as Consultant in Radiology to the United States Army, the Veterans Administration, and the National Research Council.

From 1924 to 1929 Dr. Christie was editor of the *American Journal of Roentgenology and Radium Therapy.* He is Past President of the American Roentgen Ray Society, and a Fellow and Past President of the American College of Radiology. In 1937, he was elected President of the Fifth International Congress of Radiology, an indication of the high regard in which he is held both nationally and internationally. He has been made an honorary member of most of the leading radiological societies of the world, and a list of the many honors conferred upon him would be too formidable for enumeration here. However, mention must be made of the latest honor conferred upon him by the British Faculty of Radiologists. In electing him an Honorary Fellow, the Faculty bestowed upon him the highest distinction which it can confer.

Dr. Christie served as President of the Medical Society of the District of Columbia, 1931–32. The substance of his Presidential Address, which he delivered, May 25, 1932, on the problems of the general practitioner, is still so timely that it is being printed in this issue of the MEDICAL ANNALS. In 1948 the District Medical Society presented Dr. Christie with a citation "in recognition of his outstanding contributions to medicine and society."

Dr. Christie was married to Maude Irene Hopkins, June 1, 1904. Four children were born to them: Mrs. Geneva Irene Morris, who resides with Dr. Christie at Sunshine, Md.; Carlisle Van Dyke Christie, who lives in Illinois; Mrs. Harriet Inez Beck, of Maine; and Milton Arthur Christie, now deceased. He now has eleven grandchildren and four great grandchildren.

In addition to his active practice in radiology, Dr. Christie has contributed a great deal of his time to the Young Men's Christian Association. He is known to thousands through his leadership in the Methodist

(*Continued on page 474*)

THE PROBLEMS OF THE GENERAL PRACTITIONER*

ARTHUR C. CHRISTIE, M.D., F.A.C.P.

Washington

EDITOR'S NOTE: Although this Presidential Address was delivered in 1932, its analysis of the problems besetting the general practitioner is as timely and thought-provoking today as it was eighteen years ago. How some of these problems are being solved is discussed in the article by General Hawley which appears in this issue of the MEDICAL ANNALS.

The Medical Society of the District of Columbia has been in existence for one hundred and fifteen years, a period covering the major portion of the life of our Nation and spanning almost the entire nineteenth century. During this time modern scientific medicine has had its inception and has undergone a development far beyond anything accomplished in all the preceding centuries.

I have had the honor to serve during this past year as the sixty-fifth president of this Society. Men come and go in the chair of the presiding officer and in the other official positions of the Society, but the Society itself continues year after year to serve the profession and the community. It must be the care of each succeeding group of officers that the great traditions of the profession are preserved and that the objects for which the Society was founded are carried out to the fullest possible extent.

One of the most important functions of a medical society is to provide means for the continuous education of its members. There is nothing more difficult for the young physician to grasp than the fact that his medical education really begins when he graduates from medical college and enters upon practice. The medical college scarcely more than furnishes him with the tools with which he must work. He soon learns the profound truth of the famous aphorism of the father of medicine that "experience is fallacious and judgment difficult." There is no place where a young man can more quickly orient himself and acquire a means of judging true relative values than in the open forum of his medical society. The young man who neglects this association with his fellows in practice, be he ever so brilliant, will in only a few years reach dead level from which he is not likely to rise. But it is not only the young man who needs the stimulating contacts of the medical society or who profits by its educational opportunities. Sir William Osler in writing on the educational value of the medical society wrote as follows: "The family doctor, the private in our great army, the essential factor in the battle, should be carefully nurtured by the schools and carefully guarded by the public. Humanly speaking, with him are the issues of life and death, since upon him falls the grievous responsibility in these terrible emergencies which bring darkness and despair to so many households. No class of men needs to call to mind more often the wise comment of Plato that education is a life-long business."

We are living in a day of rapidly changing conditions. Science with its new discoveries has brought to light a great body of new truth, and inventive genius has produced an entirely new technology. Not only has the practice of medicine changed within itself but it finds itself in a new world to which it must become adjusted. Many of our present-day problems are due to maladjustment to rapidly changing social and economic conditions. My principal theme in this address tonight is the general practitioner in his relation to some of these problems of the medical profession. Notwithstanding much loose talk about the "passing of the general practitioner," he is today the very center and foundation of the practice of medicine as he has been from the earliest days in Greece where scientific medicine had its birth. The great traditions of medicine down through the centuries gather around him and many of its finest achievements are attributable to him.

SCIENTIFIC ACHIEVEMENTS OF GENERAL PRACTITIONERS

We are likely to think of the general practitioner as one who is practicing the art of medicine often with little attention to its scientific foundations. We rarely think of him in connection with research or fundamental new discoveries. It requires no exhaustive knowledge of medical history, however, to make one aware of the fact that many of the fundamental discoveries in medicine have been made by men in the general practice of medicine. I need not mention Hippocrates or Galen or any of the other great names of ancient days to substantiate this statement. It is not too much to say that in almost any list of the greatest names in medical history more than half of them would be those of general practitioners. In such a list there would be a few scientists like Pasteur who had no medical training, a few scientists like Helmholtz who were only incidentally trained in medicine, a few research workers like Claude Bernard who never practiced medicine at all, and a few specialists like John Hunter and Joseph Lister and Semmelweis.

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* The major portion of the Presidential Address delivered before the Medical Society of the District of Columbia, May 25, 1932.

It would be fascinating to go over the field of medical history and set down the achievements of the general practitioner, but the story would be a long one. We need hardly leave the English-speaking race in order to prove our point, but in such a connection one would always think of the great achievements of Robert Koch. It was while he was practicing medicine in a small country town in his native Germany and riding over the rough roads of a country district that he made some of his greatest discoveries and laid the foundation for all the work which made modern bacteriology possible. In this fiftieth year after his discovery of the tubercle bacillus let us not forget that its discoverer was a busy country doctor. Among English-speaking peoples the list of such men is a long one. In any list of the great in medicine, even if it contained only three or four names, that of William Harvey would always be present. Until he discovered the circulation of the blood no scientific progress was possible in the study of disease because there was no accurate knowledge of the normal functions of the body. Harvey practiced medicine in the city of London and had for his patients people of every class of society. In spite of the demands of his practice his contributions to medical science were of such magnitude that it is not too much to say that his discoveries entitle him to be classed as the greatest name in 17th century medicine.

Another city physician of the 17th century, although of no great scientific attainments, was scarcely less great than Harvey if we are to judge by the effect that he had upon the future of medical progress. Thomas Sydenham may be called the "father of clinical medicine." He is the very type of the physician of good sense whose practice is based upon observation and experience.

Down in the middle of the succeeding century came Edward Jenner, a fit successor of both Harvey and Sydenham. He made careful observation, cautious experimentation and deductive reasoning, all of which contributed to the discovery of the value of vaccination to prevent smallpox. Such a discovery would have been worthy the research of a lifetime to the exclusion of all else, but Jenner made his great contribution while practicing medicine in a small town in an English countryside.

But even if I were able to recount all of the distinctive contributions of all the great men in medicine for the past 2,500 years they would be small in comparison to the collective service that has been rendered to humanity by the hundreds of thousands of general practitioners of medicine whose names are unknown. Even today when specialism has developed to a high point, when laboratory aids to diagnosis and treatment are multiplied almost beyond count, and when groups and clinics are bidding for patients, it still remains true as it has always been that nothing can take the place of personal contact between the physician and his patient. The practice of medicine at its best must always be a personal and very intimate service. This is a fundamentally important matter. It must be taken into consideration in study of a great variety of subjects related to the care of the sick. The costs of medical care, state medicine, group practice, systems of sickness insurance, free and pay clinics, must all be studied in the light of the future of the general practitioner. Whatever methods are devised for supplying medical care to certain special groups or to certain types of sickness or disability, it will remain permanently true that more than 90 per cent of all medical care must be furnished by the general practitioner in personal contact with his patients. It is therefore important that we rid our minds of the idea of the "passing of the general practitioner"; neither the group, the clinic nor the specialist can ever take his place. He will continue to do in the future as he has in the past the great bulk of routine practice which takes him into every household in the land and makes him the adviser and the friend and helper in time of need.

The general practitioner is facing today more difficult problems than any other man in the medical profession. They have arisen because of revolutionary changes which have taken place both within and without the profession. The medical profession should realize that it must rise or fall with the general practitioner and the public should be made to see that whatever injures the rank and file of the doctors of the land will inevitably bring injury to the people. To make him efficient should be our highest ambition as members of our common profession; to save him from evil should be the constant care of all.

MEDICAL EDUCATION

There are numerous problems which deserve discussion but I can touch on only a few of them and in a suggestive rather than exhaustive way. The first is the problem of medical education as it affects the general practitioner. The primary object of undergraduate instruction should be to develop general practitioners. It is apparent that there is an increasing and laudable tendency to regard all medical education as a unit. The era of instruction in isolated subjects due to overspecialization and to too great emphasis on mechanical and laboratory procedures has about passed. We have come to the realization that education is a continuous business with various phases, premedical, undergraduate, internship and postgraduate, the latter including the education of the specialist, and continuing throughout the physician's active life.

We are beginning to understand that no individual can master all branches of medical knowledge. Emphasis is being placed more and more upon principles and fundamentals. It is especially important that less emphasis be placed in the undergraduate course on complicated technical procedures, which are properly in the field of the specialist. Why, for instance, should an undergraduate student waste his time viewing or practicing gastroenterostomies or other complicated surgical procedures? Much time is still wasted in almost every course from bacteriology, pathology and serology, to surgery and all of the specialties on technical procedures which cannot be mastered by the undergraduate. Such work serves only to take his time from the study and mastery of many simple methods in diagnosis and therapy of which he should be the master.

The general practitioner in order to continue to occupy the central place in medical practice must enlarge his field. Much that he formerly did is now performed by the nurse or technician and the general practitioner must begin to take over many of the procedures formerly delegated to specialists. And let me interpolate here that the specialist must also occupy a much broader field than he has in times past. Specialists have narrowed themselves down to fields that are far too constricted. Many of them instead of being broadminded physicians able to view their patients as sick persons are mere technicians whose manipulations may really do harm instead of good. The time must come when a specialist instead of being a person who has restricted his practice to narrow limits is, on the other hand, a physician of broad clinical training and experience who has broadened his field to include special knowledge and ability in some particular line of practice.

But to return to the general practitioner. It is not that medical courses must become longer and more difficult but that they must be modified so that the general practitioner is perfecting himself in a higher field of effort. It is not only in the field of diagnosis and treatment of disease that educational emphasis is changing but it is now recognized that the general practitioner has a wide field in the prevention of disease. He must come out of college understanding thoroughly what is required in periodic medical examinations; he must know much about the mental and physical development of normal infants and children; he must be familiar with the meaning of prenatal care and he must know the value of rest, diet, sunlight, exercise and diversion; in a word, he must be equipped to render complete medical service to the families in which he becomes the trusted medical adviser. Moreover, he must realize that his education is then to be a continuous process for the rest of his life. Medicine is changing constantly and rapidly, it is never static. It is said that John Hunter did not permit his students to take notes "because", he said, "when examination time arrives I may have changed my mind and then you'll be wrong." Education can never stop for the practitioner of medicine, at least not before he has reached the age which Anthony Trollope described as the "fixed period" and which Osler said is the "chloroform age."

SPECIALISM AND MEDICAL PRACTICE

Another important problem of the medical profession today is that of specialism. It has a very direct effect upon the fortunes of the general practitioner. No one will deny that specialism has been a necessary development in medicine, but it is plain that it has developed too rapidly and that many evils have attended it. It is competently stated that about 40 per cent of recent graduates enter upon the practice of some medical specialty. It is quite certain that only a small percentage of these enter into special practice through the door of adequate preparation. A large number have had no background of broad clinical experience, which is the only sound preparation for a specialist in any line of practice. The following paragraph is from Dr. Rappleye, Director of Study of the Commission on Education writing of the much discussed "costs of medical care":

> "A part of the unnecessary cost arises from the common practice of self-diagnosis and selection of specialists by patients. Frequently it is not the service of an expert that the patient needs. Shopping around among specialists is likely to be expensive and probably has arisen in part because of the incomplete services which many physicians provide for their patients. Studies of the needs and demands for medical services seem to show quite clearly that about 85 per cent of medical needs are for six general groups of disorders, for the usual care of which a properly trained physician should have no difficulty. Some outside assistance is needed occasionally and should be secured on the advice of the patient's physician. Many patients do not need the services of specialists; patients, physicians and the public should be made to realize that. . . . There are many economic and professional factors which have made specialization popular and profitable, but the development of specialists beyond the actual needs of the community is unsound and costly in the long run."

There are many indications that the time is near at hand when specialization in medicine will be brought under some kind of control. A start has been made in several of the specialties by the formation of boards for certification of specialists in their respective fields after thorough investigation and examination to determine their qualifications. There is no doubt whatever that the mushroom growth of a large number of inadequately trained, poorly equipped, and inexperienced self-styled specialists has made inroads upon the practice of the general practitioner and that it is harmful both to medicine and to the public. Either the profession must find some way to control it so that only qualified men shall be entitled to practice a specialty or attempts will soon be made to require special licensure of specialists by the various state boards. I believe that the matter can be dealt with adequately within the profession if the responsible organizations in each specialty will attend energetically to the certification of its own men.

I conclude with a quotation from Sir William Osler which is no less true today than when it was written thirty years ago: "It is amusing to read and hear of the passing of the family physician. There never was a time in our history in which he was so much in evidence, in which his prospects were so good or his power in the community so potent. The public has even begun to get sentimental over him! He still does the work; the consultants and the specialists do the talking and the writing; and take the fees! By the work, I mean that great mass of routine practice which brings the doctor into every household in the land and makes him, not alone the adviser, but the valued friend. He is the standard by which we are measured. What he is, we are; and the estimate of the profession in the eyes of the public is their estimate of him. A well-trained, sensible doctor is one of the most valuable assets of a community, worth today, as in Homer's time, many another man. To make him efficient is our highest ambition as teachers, to save him from evil should be our constant care as a guild."

There are many problems to solve, and while progress continues there always will be problems. The medical profession faces nothing more important today than to restore the old-time family physician to his central place in medical practice. Nothing in group practice, specialism or clinics offers a satisfactory substitute for the personal contact of the physician with his patient. Even in an age of standardization medical care cannot be delivered by any patent process. Man cannot be standardized; each individual is unique. The physician must see his patient, must understand his environment, must hold his confidence, and furthermore he must be the physician of the patient's own choice. Here is a problem which the entire medical profession must help to solve. Our fortunes are inextricably involved in those of the general practitioner.

SAN FRANCISCO MECCA OF 10,000 AMA PHYSICIANS

Of the 10,119 fellows and members who registered for the 99th Annual Convention of the American Medical Association in San Francisco, June 26–30, 1950, about 75 were members of the Medical Society of the District of Columbia. Official representatives of the Society, who attended the meetings of the House of Delegates, were Drs. Herbert P. Ramsey and Hugh H. Hussey, Delegates, and Theodore Wiprud, Secretary.

The Inaugural Meeting, at which the President was installed, was broadcast coast-to-coast over ABC and Mutual on June 27 from the Gold Ballroom of the Palace Hotel. Dr. Elmer Lee Henderson, of Louisville, Ky., new President of the AMA, took the following oath of office, which was used for the first time in the history of the AMA:

> "I solemnly swear that I shall carry out the duties of the office of President of the American Medical Association to the best of my ability. I shall strive constantly to maintain the ethics of the medical profession and to promote the public health and welfare. I shall dedicate myself and my office to improving the health standards of the American people and to the task of bringing increasingly improved medical care within the reach of every citizen. I shall uphold the Constitution of the United States and the Constitution and By-laws of the American Medical Association at all times. I shall champion the cause of freedom in medical practice—and freedom for all my fellow Americans.
>
> "I do solemnly swear that I will discharge the duties of this office to the best of my ability, so help me God."

Following the oath Dr. Henderson made his Presidential Address.

Dr. Louis H. Bauer, of Hempstead, N. Y., Chairman of the AMA's Board of Trustees, presented the Distinguished Service Medal, which is an annual award, to Dr. Evarts A. Graham, since 1919 Professor of Surgery at Washington University School of Medicine in St. Louis. Dr. Graham first won international recognition in 1924 for his work in developing a method for roentgen visualization of the gallbladder. He is Surgeon-in-chief at Barnes Hospital, from which place he and Dr. J. J. Singer in 1933 reported in the *Journal of the AMA* the first successful removal in one stage of an entire lung for carcinoma of the bronchus. Dr. Graham, together with Dr. Warren H. Cole, introduced cholecystography in 1924, a method now known as the Graham-Cole test.

Dr. Ernest E. Irons, of Chicago, retiring President of the AMA, was awarded the President's Medal. His "Progress Report on American Medicine" was delivered at the opening session, June 26.

The new President-elect, Dr. John W. Cline, of San Francisco, is Assistant Clinical Professor of Surgery at Stanford University Medical School. He has served as President and Director of the San Francisco County Medical Society, President of the California Medical Association, a member of the Council of the California Medical Association for several years, and is now a member of the Cancer Commission of that Association. He has been a member of the House of Delegates of the AMA since 1945.

Dr. R. B. Robins, of Camden, Ark., was elected Vice President. Continuing in office are Dr. George F. Lull, Chicago, Secretary; Dr. J. J. Moore, Chicago, Treasurer; Dr. F. F. Borzell, Philadelphia, Speaker of the House of Delegates; and Dr. James R. Reuling, Bayside, N.Y., Vice Speaker. Dr. Leonard Larson, of Bismarck, N.D., and Dr. Thomas P. Murdock, of Meriden, Conn., were elected to the Board of Trustees.

Dr. Peter M. Murray, Negro physician of New York City, was the first of his race to be seated in the AMA's House of Delegates. Dr. Murray is a graduate of Howard University School of Medicine (1914) and a Trustee of that institution; from 1918 until 1920 he was Assistant Surgeon-chief of Freedmen's Hospital. He is presently Director of the Department of Gynecology at Harlem Hospital, New York, and Director of Obstetrics and Gynecology at Sydenham Hospital, New York. He was President of the National Medical Association in 1930 and 1931.

A two-day session on Military Medicine and Surgery was sponsored by the AMA for the first time. Dr. Richard L. Meiling, Director of Medical Services, Office of the Secretary of Defense, presented a paper on "Military Medicine and Its Relation to American Medicine." His paper was discussed by Rear Admiral Clifford A. Swanson, Surgeon General of the Navy; Major General Harry G. Armstrong, Surgeon General of the Air Force; and Major General George E. Armstrong, Deputy Surgeon General of the Army.

Several members of the District Medical Society participated in the Sectional scientific program and exhibits. Dr. Margaret Mary Nicholson, Chairman of the Section on Pediatrics, gave the Chairman's Address, "Can the Pediatrician Influence Juvenile Delinquency?" A paper on "Differential Diagnosis of Juvenile Rheumatoid Arthritis with Particular Reference to Rheumatic Fever" was presented by Drs. M. P. Schultz, E. J. Rose and F. R. Leyva before the same Section.

Dr. Roy Hertz, of Bethesda, Md., spoke on "Administration of Massive Dosage of Estrogen to Breast and Prostate Cancer Patients: Blood Levels Attained" before the Section on Experimental Medicine and Therapeutics. Dr. June Carol Shafer of Arlington, Va., was co-author with Dr. Acors W. Thompson of a paper on "Congenital Vascular Anomalies: Case Reports and Discussion of Unusual Vascular Lesions," which was read before the Section on Dermatology and Syphilology. Drs. Oscar B. Hunter, Sr., George N. Raines, Walter Freeman, and Major General Wallace H. Graham, M.C., U.S.A., were among the discussants of papers.

Members of the District Medical Society were also among the sponsors of the 257 scientific exhibits, as the following list indicates:

Section on Internal Medicine: "Teaching the Diabetic Patient," Dr. Hugh L. C. Wilkerson, Diabetes Branch USPHS, Boston; Drs. Lester J. Palmer, John A. Reed and Randell G. Sprague, American Diabetes Association, Brooklyn, N. Y.; and Elizabeth Perry, American Dietetic Association, Chicago.

Section on Nervous and Mental Diseases: "Neurosyphilis—Treatment with Penicillin and Malaria Therapy," Dr. Winfred Overholser, St. Elizabeths Hospital, Washington, D. C.; "A Hypothesis of Schizophrenic Behavior," Drs. R. L. Jenkins and Lucy D. Ozarin, Veterans Administration; "Advances in Electroencephalography," Drs. F. A. Gibbs and W. D. Stephenson, Veterans Administration Hospital, Hines, Ill., and Pearce Bailey and H. A. Kilde, Veterans Administration, Washington, D. C.

Section on Physical Medicine and Rehabilitation: "Rehabilitation of the Blind," Drs. Louis B. Newman and Russell Williams, Veterans Administration Hospital, Hines, Ill., and Drs. A. B. C. Knudson and Charles W. Bledsoe, Veterans Administration, Washington, D. C.

A motion picture on "Familial Cerebellar Ataxia in Four Brothers" was credited to St. Elizabeths Hospital, Washington, Dr. Winfred Overholser, Superintendent.

The Passano Foundation $5,000 cash award, presented annually in recognition of advancements in medical research, was made to Dr. Philip S. Hench and Dr. Edward C. Kendall, June 28, at a dinner in the St. Francis Hotel, at which officers and trustees of the AMA were guests. The award was given to the doctors for their chemical investigation of the adrenal cortical hormones, the development of cortisone and its application to rheumatic diseases.

The Passano Foundation was established in 1943 by the Williams & Wilkins Company, medical publishers of Baltimore. The MEDICAL ANNALS is printed by the Waverly Press, Inc., a sister organization of Williams & Wilkins.

The Grass Roots Conference of County Medical Society Officers convened on June 25. Dr. Gunnar Gundersen, of La Crosse, Wis., member of the AMA's Board of Trustees, gave the address of welcome. Dr. A. M. Mitchell, of Terre Haute, Ind., was chairman of the meeting.

The 27th annual meeting of the Woman's Auxiliary to the AMA was held concurrently with the convention of the Association.

The American Medical Golfing Association held its 34th tournament at the Lakeside Course of the Olympic Golf Club on June 26.

The annual exhibit of the American Physicians' Art Association was held on the lower level of the Civic Auditorium during the sessions.

Because of difficulties arising in Denver, the 1950 Interim Clinical Session will be held instead in Cleveland, Ohio, December 5–8.

Hospital Service Agency News

Hospital Service Agency is grateful to the Editorial Board of the Medical Annals for letting us have this space in every issue from now on. We plan to fill it with short HSA news notes, of interest to physicians, and hope it will be the means of a closer link with the medical profession, which was largely responsible for our inception. Now, more than ever before, does HSA need the support and backing of the physicians in the Metropolitan Area.

What is HSA? Many of the newer members of the Medical Society don't even know of our existence and purpose, so in this, our first column, let us introduce ourselves with such brevity that those who run may read, and (we hope) heed. HSA was established in 1935 to solve a community problem. Doctors and hospitals were giving free services to many who were able to pay, while others, unable to pay, had difficulty in proving their need. Besides the exploitation of the medical profession and hospitals, there was much duplication and waste. To correct these abuses, physicians, hospitals, Community Chest, and the public combined to set up a central admitting bureau, formerly known as Health Security Administration, but now called Hospital Service Agency.

In the 15 years since 1935, doctors and hospitals have provided, through HSA, 1,350,000 inpatient days for 150,000 patients, and 2,700,000 clinic visits for 650,000 outpatients.

Source of funds. More than half of HSA funds are derived from the public through the Community Chest Federation. The balance comes from patients' payments, tax funds of the Virginia counties, and some special purpose gifts from philanthropic organizations. HSA is not an agency of the Chest, nor does it use one dollar of Chest funds for its operating budget. This is derived from a part of the money collected from paying patients. This source, exclusive of the operating budget, constitutes about 25 per cent of the total Hospitalization Fund which is administered by HSA for the medical and hospital needs of indigent and semi-indigent patients.

Screening of applicants. During 1949, HSA's 9 social case workers interviewed 28,139 applicants, each one handling an average of 13.3 applicants per day. Because of more efficient methods, the records for the first quarter of 1950 reveal that our case workers are averaging 16.6 applicants each per day, an increase of nearly 25 per cent.

Screening of the 28,139 applicants in 1949 resulted in admission arrangements and clinic passes for 11,461 patients, and the rejection or referral of the balance to other sources. Of the balance, 853 were found able to pay and were referred to private physicians.

Financial problems. In their 15 years of experience with the Community Chest Hospitalization Fund, hospitals have taken a loss of more than $1,000,000 in collections at their contract rates. Only during the War years, when the Hospitalization Fund was derived from the Community War Fund, were hospital rates paid in full.

Chest funds for hospitalization for 1950 are short nearly $150,000, or three times the shortage in 1949. In May, it became acutely evident that, if all eligible indigents were to be paid for in full at the existing hospital rates, the fund would be exhausted well before the end of the year. The same situation, although in a lesser degree, presented itself in 1949, but the hospitals agreed to a 20 per cent cut in rates for the last 7 months of the year. The hospitals refuse to make a similar cut to accommodate the much larger shortage for this year. As an alternative, the Chest directed that, beginning in May, the balance of the fund would be rationed over the remaining months of the year, and that HSA must reduce its certification of needy patients, regardless of eligibility, to keep within each month's allocation. This has already resulted in hardships and bad public relations. To keep within the available funds, approximately 460 adults and 90 infants eligible and unable to pay will have to be denied hospitalization before the end of the year.

Looking ahead. Budget time for 1951 is here, and, as this is being written, the budget is being prepared. We hope, once more, that the fund will be adequate to care for the needy sick in the Metropolitan Area. The Chest supports more than 100 agencies, all of which are worthy of community support, but the moot question is, in what order of precedence? Several prominent physicians have contended that a

(*Continued on page 473*)

News and Personals

The Arthritis and Rheumatism Foundation is offering fellowships for research in the basic sciences related to the study of arthritis. These fellowships carry a stipend of from $4,000 to $6,000, depending upon the needs and ability of the worker, and run for a period of one year. The fellowships will begin in July 1951, although earlier appointments will be considered by the committee.

The Foundation is anxious to back a candidate, rather than a project, an institution, or a hospital. It hopes to arouse interest in arthritis in a wider circle of medical investigators and to encourage able, inquiring minds.

Applications should be sent to the Arthritis and Rheumatism Foundation, 535 Fifth Avenue, New York 17, N.Y. by January 1, 1951. Notification of the fellowships granted will be made on March 1, 1951.

If any applications are received by September 15, 1950, they will be acted on at that time and notification made immediately.

Medical Officer positions in the Federal Service are available immediately and will be filled from an examination recently announced by the Director of the Eighth U. S. Civil Service Region in St. Paul, Minn. Medical doctors who have just completed their internship are eligible for positions paying $5,400. Medical doctors with one or two years' experience performing responsible medical doctor duties are eligible for positions paying $6,400 and $7,600 per year, respectively.

Applications for these positions will be accepted until further notice. Application forms may be obtained at any first- or second-class post office. A copy of the examination announcement may be obtained by writing the Director, Eighth U. S. Civil Service Region, St. Paul Post Office and Customhouse Building, St. Paul 1, Minn.

The American Board of Obstetrics and Gynecology announces that the next scheduled examination (Part I), written examination and review of case histories, for all candidates to the Board will be held in various cities of the United States and Canada on Friday, February 2, 1951. Application may be made until November 5, 1950. Application forms and a new bulletin, "Appraisal of Incomplete Training Form," will be sent upon request made to Dr. Paul Titus, Secretary of the Board, 1015 Highland Building, Pittsburgh 6, Penn.

At the meeting of the **Executive Board of the Medical Society of the District of Columbia,** June 19, Dr. Worth B. Daniels was appointed to succeed Dr. Montgomery Blair, Jr., as Chairman of the Medical Advisory Committee to the Washington Regional Blood Center. Dr. Blair resigned this position in view of his recent appointment as Director of the Blood Center.

Drs. Richard H. Spire and Henry C. Macatee were appointed to represent the Medical Society on the Health Section of the United Community Services. Dr. Macatee succeeds himself; Dr. Spire succeeds Dr. Thomas F. Collins.

In accord with the recommendation of the Subcommittee on Tuberculosis, the Board voted to change its name to Subcommittee on Diseases of the Chest. The Board also approved the establishment of a Section on Diseases of the Chest in line with the AMA's recently organized Section on Diseases of the Chest.

Prior to the May meeting of the Board, the United Community Services had requested representatives from the Medical Society for an early meeting, to which the President responded by appointing Dr. Russell J. Fields to the Board of Trustees of UCS and Dr. William F. Burdick to membership on the General Assembly. The Board approved these appointments on May 22.

The Rheumatism Society of the District of Columbia elected new officers, June 20, at its meeting in the Medical Society's building. They are:

Dr. Thomas McP. Brown, *President;* Dr. Milton C. Cobey, *Vice President;* Dr. Darrell C. Crain, *Secretary-Treasurer.*

The District Dental Society installed new officers at its meeting, June 13, in the Medical Society's building. They are:

Dr. Marcus H. Burton, *President;* Dr. John A. O'Keefe, *President-elect;* Dr. E. Milburn Colvin, Jr., *Vice President;* Dr. Karl Hayden Wood, *Secretary-Treasurer* (reëlected).

A business meeting and election of officers was held by the **Clinical Club of Washington,** June 22. Elected to serve during 1950–51 were:

Dr. Samuel Benjamin, *President;* Dr. Louis K. Alpert, *Vice President;* Dr. William Kurstin, *Secretary-Treasurer.*

Dr. William E. Bageant Receiving the Frank E. Gibson Award

This picture was taken at the 53rd Annual Banquet of the Washington Medical and Surgical Society, May 25, 1950. Left to right: Dr. J. Keith Cromer, President of the Society; Dr. Bageant; Dr. George Reeves, Chairman of the Gibson Award Committee; and Dr. Frank E. Gibson, Permanent Treasurer of the Society, for whom the Award is named.

Among the **Public Health Service grants for cancer research** announced early in July by Federal Security Administrator Oscar R. Ewing were the following:

Georgetown University School of Medicine: $9,774 to Dr. M. X. Sullivan for study of the effect of tumor-damaging compounds on the enzymatic activity of normal and malignant tissue.

George Washington University School of Medicine: $5,511 to Dr. Ivor Cornman for study of the role of proliferation in the precarcinogenic and carcinogenic processes.

Additional funds in the amount of $7,975 were provided George Washington University to enable Dr. Calvin T. Klopp to continue his work on localized cancer therapy by arterial injection of nitrogen mustards. The National Research Council received an additional $27,000 to continue research on correlation of structure with biological action of chemical compounds, a project which is being directed by Dr. Walter R. Kirner.

Georgetown University's cancer training program continues under the direction of Dr. Murray M. Copeland with an additional grant of $25,000, which is the annual amount provided for this purpose by PHS for 4-year schools. A news release, dated June 30, states that all of the Nation's 79 medical schools are now participating in the PHS program to improve the cancer training of future physicians.

George Washington University has also received a grant of $7,120 from the National Foundation for Infantile Paralysis to be used for drug research against multiplication of the polio virus. Dr. Paul Kenneth Smith, Professor of Pharmacology, is in charge of this project.

Two new appointments to the faculty of **Georgetown University School of Medicine** and one promotion have been announced by the Reverend Paul A. McNally, S.J., Dean of the School of Medicine.

Dr. Francis Michale Forster has been appointed Professor of Neurology and Director of the Department of Neurology, succeeding Dr. Norman Q. Brill, who resigned to devote full time to his private practice. Dr. Forster is an alumnus of Xavier University and the University of Cincinnati. In 1941 he became affiliated with Boston University School of Medicine, first as Instructor in Neurology and for four years as Assistant Professor of Neurology. Since 1947 he has been Associate Professor of Neurology at Jefferson Medical College, except for periods in which he held guest lectureships at the University of Minnesota and the University of Iowa. Dr. Forster was Secretary of the Section on Nervous and Mental Diseases of the AMA in 1948 and is now Chairman of the Survey Committee of the American Academy of Neurology. He is the author of numerous scientific articles.

Dr. Charles A. Hufnagel, who has been appointed Assistant Professor of Surgery and Professor of Experimental Surgery, began his new duties, August 1. Dr. Hufnagel is a graduate of Harvard Medical School. In 1944 he was appointed Assistant in Surgery at Harvard. After a year as Surgical Research Fellow he served as an Instructor in Surgery and as Director of Laboratory for Surgical Research at the same institution except for periods in which he held the posts of Junior Associate in Surgery and Associate in Thoracic Surgery at the Peter B. Brigham Hospital.

Dr. Frederic G. Burke has been named Professor of Pediatrics, succeeding Dr. William F. O'Donnell, resigned, under whom he served as Assistant Clinical Professor of Pediatrics. Dr. Burke is a graduate of Seton Hall College (1938) and Georgetown University School of Medicine (1942). From 1943 to 1945 he held a teaching fellowship in pediatrics at George Washington University Hospital, upon the completion of which he was appointed Director of Pediatrics Instruction at Children's Hospital.

Dean Walter A. Bloedorn of **George Washington University School of Medicine** has announced the promotion of a number of faculty members in the School of Medicine. Four physicians were promoted to full professorship. They are:

Dr. Ronald A. Cox, from Assistant Clinical Professor to Professor of Ophthalmology

Dr. Thomas M. Peery, from Associate Professor to Professor of Pathology

Dr. William W. Stanbro, from Associate Professor to Professor of Radiology

Dr. Charles S. Wise, from Associate Professor to Professor of Physical Medicine

CALENDAR OF MEETINGS

June 16	Board of Censors
	Committee on Arrangements, Annual Scientific Assembly
	Committee on Public Health Exhibit, A.S.A.
	Board of Trustees, Medical Service
June 19	Executive Board
	Joint meeting of representatives from Medico-Chirurgical and District Medical Societies
	D. C. Chapter, American Academy of General Practice
June 20	District Rheumatism Society
June 22	Joint meeting of Subcommittees on Maternal and Child Welfare
	Committee on Scientific Exhibit, A.S.A.
June 27	Medical Officers' Reserve Units
July 11	Medical Officers' Reserve Units

Other promotions among the medical staff are as follows:

Dr. Seymour Alpert, from Instructor to Assistant Professor in Anesthesiology

Dr. Edward James Beattie, Jr., from Associate in Surgery to Assistant Professor of Surgery

Dr. Charles S. Coakley, from Assistant Professor to Associate Professor of Anesthesiology

Dr. Laurence Lee Cockerille, from Associate in Obstetrics and Gynecology to Assistant Clinical Professor of Obstetrics and Gynecology

Dr. William G. Cushard, from Clinical Instructor to Associate in Psychiatry

Dr. Samuel M. Dodek, from Associate in Obstetrics and Gynecology to Assistant Clinical Professor of Obstetrics and Gynecology

Dr. William S. McCune, from Assistant Clinical Professor to Associate Clinical Professor of Surgery

Dr. George Nordlinger, from Associate in Obstetrics and Gynecology to Associate Clinical Professor of Obstetrics and Gynecology.

The District Commissioners have filled two vacancies at **Gallinger Municipal Hospital** through staff promotions.

Dr. Leroy E. Hoeck succeeds Dr. Lewis K. Sweet as Chief Medical Officer in Pediatrics. Dr. Hoeck received his medical degree from Iowa State University and served in the U.S. Army from 1942 to 1946. For the past four years he has been a member of the staff at Gallinger, serving as assistant to Dr. Sweet, who resigned to accept a research position with the National Institutes of Health.

Dr. Charles H. Nash, Jr., succeeds Dr. Robert H. Barter as Chief Medical Officer in Obstetrics and Gynecology. Dr. Nash graduated from the University of Texas School of Medicine and served with the Army in the Pacific area during the War. He came to Washington a year ago as Instructor in Obstetrics and Gynecology at George Washington University and early this year was named Associate Medical Officer in Obstetrics and Gynecology at Gallinger. Dr. Barter is now Associate Professor of Obstetrics and Gynecology at George Washington.

The recently organized **Providence Hospital Alumni Association** held its first all-day reunion on June 26, which was attended by more than 200 former interns and staff members. Luncheon was served at the Nurses' Home following a three-hour scientific session at the Hospital. A golf tournament, softball game, and other recreational activities were enjoyed during the afternoon at the Kenwood Country Club.

The day concluded with a dinner meeting at the Club, with Dr. Samuel Zola, President of the new Association, presiding. Other officers present were: Dr. Philip A. Caulfield, Vice President, who initiated the reunion; Dr. Frank J. Sanzaro, Secretary; and Dr. Vincent B. Hungerford, Treasurer.

Sixteen physicians were honored at the dinner and made Honorary Members of the Alumni Association. They were: Drs. Claude C. Caylor, Charles S. White, Sr., J. Thomas Kelley, Thomas S. Lee, James A. Flynn, Casimir Leibell, Roy S. Higgins, Joseph S. Wall, William B. Marbury, Joseph J. Mundell, John A. Talbot, Joseph B. Bayne, Charles M. Beall, Robert C. Ransdell, John Brennan, Sr., and Rear Admiral George M. Calver, M.C., U.S.N.

Special tribute was paid to former Providence interns who have distinguished themselves in the medical profession. Included among them were four local physicians: Dr. Wall, Chairman of the Medical Staff at Children's Hospital, who interned at Providence from 1897 to 1899; Dr. Mundell, obstetrician, 1904 to 1905; Dr. Talbot, orthopedist, 1906 to 1908; and Dr. Caylor, pioneer Washington roentgenologist, 1910 to 1911. Dr. Caylor was particularly honored in view of having the longest record of continuous service at Providence, forty years. He was presented with a testimonial scroll by Archbishop Patrick A. O'Boyle of Washington. A gold medal, a gift from the Sisters of Charity, who administer the Hospital, was presented him by Dr. Caulfield, Chief of the Executive Staff, on behalf of Sister Celeste, Administrator.

Participating in the scientific session were Dr. Roy Goodman, Chief Surgical Resident; Dr. Fred Sanderson, Chief of the Surgical Staff; Dr. H. H. Leffler, Director of the Laboratories; and Drs. William Kessenich, John F. Finnegan, Kenneth McCoy and Russell K. Hollingsworth.

Publication of the first issue of the newly revived *Providence Hospital Alumni Bulletin*, edited by Dr. McCoy, was a special feature of the reunion. The *Bulletin* was last published in 1929. The cover design on blue simulated leather lettered in red is simple and distinctive. The issue contains interesting historical material, well illustrated. Special biographies of ten of the honorary members, an alumni list with biographical notes, and an additional staff list of those who are not alumni of the Hospital are included in this first number of the *Bulletin*.

Dr. Roy Hertz, Chief of the Endocrinology Section of the National Cancer Institute, Bethesda, Md., and Assistant Clinical Professor of Medicine at George Washington University School of Medicine, delivered two lectures on hormones in cancer, July 10 and 12, in London. Dr. Hertz was invited to London by the Ciba Foundation, British research organization, which sponsored a special series of lectures for the purpose of promoting international coöperation in medical and chemical research.

Speaking on "Dietary Trace Factors Involved in Hormone-induced Tissue Growth," Dr. Hertz described the hormone research conducted by the Cancer Institute and George Washington University. By joint efforts of the two institutions, a clinical laboratory and research ward are maintained at the University under the supervision of Dr. Hertz. Here selected patients are studied extensively to determine the most favorable methods for hormone therapy. The work on cervical cancer which Dr. Hertz described in his paper, "Clinical Studies in the Use of Massive Steroid Hormone Therapy in Breast, Prostate and Cervical Cancer," was done by him in collaboration with Dr. J. Keith Cromer, Clinical Instructor in Obstetrics and Gynecology, and Dr. Lois I. Platt, Clinical Instructor in Surgery, both of George Washington University.

While abroad Dr. Hertz attended sessions of the International Cancer Congress which met in Paris the latter part of July.

Captain Leo Cromwell Thyson, M.C., U.S.N., was awarded the Navy Distinguished Service Award by Secretary of the Navy Francis P. Matthews at ceremonies in the Pentagon, June 19. Captain Thyson, a native of Washington, was one of the first American prisoners of war during World War II (he was captured on December 8, 1941, while on duty at the American Legation, Peiping, China); he is now serving as Executive Officer of the Naval Dispensary, Navy Department.

Captain Thyson graduated in 1916 from George Washington University School of Medicine. The citation records such unusual sacrifice and devotion to duty that his many friends in Washington will be interested in reading it in full herewith:

> "For exceptionally meritorious and distinguished service to the Government of the United States in a position of great responsibility while a prisoner of war at the Japanese prison camps near Shanghai, China, from February 1, 1942, to May 15, 1945; at Fengtai, China, from May 15 to June 19, 1945; and at Hakodate, Japan, from June 30 to September 14, 1945. An officer of great professional integrity and indomitable fortitude in the discharge of his duties as senior surgeon in these camps, Captain Thyson persisted in his efforts to improve the hospital and medical facilities for the Allied nationals interned there. Handicapped by the lack of adequate supplies and equipment to combat the frequent plagues of malaria, dysentery and nutritional diseases, he succeeded, by his personal and indefatigable endeavors, in obtaining vitally-needed medicines and in maintaining an exceptionally low rate of mortality among the prisoners, many of whom were over 50 years of age. Heedless of the possible fatal effects of Japanese-made vaccines, he insisted on testing all serums upon himself before administering them to others to determine the proper dosage for the internees. On one occasion, Captain Thyson became violently ill as a result of one of his experiments and discovered that the normal amount given to a Japanese would be fatal to Occidentals. Grossly humiliated on several occasions and once beaten by the Japanese guards for his efforts, he persevered in his attempts to obtain better food and living conditions for the prisoners and, by his determined and often heroic pertinacity, succeeded in procuring the release of all seriously sick and aged prisoners from work details. Although suffering from disease and malnutrition himself, Captain Thyson, by his unselfish and zealous devotion to duty during the long period of incarceration, was responsible for saving the lives of many of his fellow prisoners, thereby reflecting the highest credit upon himself and the United States Naval Service."

At the Annual Meeting of the **American Diabetes Association** in San Francisco, June 24 and 25, **Dr. John A. Reed** was reëlected Secretary. The Council of the ADA unanimously adopted a resolution that by virtue of this office Dr. Reed should serve as ex officio member of all committees of the Association. He was also elected to serve for three years on the Editorial Advisory Board of the *ADA Forecast*, which is the lay publication of the Association.

Dr. Reed participated in a Panel Discussion on Diabetes Mellitus before the Lay Society of the Washington Diabetes Association in Seattle, June 20.

Dr. Charles P. Ryland, Vice President of Physician-Veterans of World War II, represented the District Medical Society at services at Arlington Cemetery, July 4, in commemoration of the 30th anniversary of the death of **General William C. Gorgas.** General Gorgas will always be remembered for his sanitary and health measures which made possible the construction of the Panama Canal.

At the **26th Annual Meeting of the American Heart Association** in San Francisco, preceding the AMA Convention, two papers by Washington physicians were presented by title: "A Method of Measuring the Volume of Blood Flow through an Extremity by Venous Pressure Determinations" by Dr. J. Ross Veal, and "A Simple Method for Measuring Prothrombin Time" by Drs. Benjamin Manchester and Boris Rabkin.

Washington Sanitarium and Hospital held formal opening exercises on Sunday, May 21, for its new six-story hospital building, which has been under construction since March 1948. The new building provides for 8 doctors' offices, 5 operating rooms, an obstetrical department, an emergency service department, X-ray departments, occupational therapy rooms, 83 private rooms, 18 semi-private rooms and 6 four-bed wards.

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, headed by Dr. Henry A. Grennan, through which requests for speakers for lay groups are filled.

Date	*Speaker*	*Subject or Title*	*Organization*
June 8	Dr. Anthony Zappala	Alcoholism	Washington Nurses Association
June 15	Dr. Darrell C. Crain	Use of Modern Drugs in the Treatment of Arthritis	D. C. League of Nursing Education
June 19	Dr. Arthur Morris	Summer Forum on Trends of Employment for Handicapped	District Department, American Federation of the Physically Handicapped
June 26	Dr. Ella Oppenheimer	District Cerebral Palsy Program	Washington Chapter, Cerebral Palsy Association
June 29	Dr. Irving Winik Dr. Oscar B. Hunter, Jr.	Administration's Health Bill (Winik—pro; Hunter—con)	Social Welfare Committee, Young Democrats Club of D. C.

The offices of the **Nurses' Examining Board of the District of Columbia** have been transferred to 1507 M Street, N.W., Room 708. Ethel J. Odegard, R.N. is Executive Secretary of the Board. The telephone number is Republic 4048.

Dr. Walter Freeman delivered the Sixth Charles Sumner Lecture at Frazier Hall, Howard University, May 25. This lecture is sponsored annually by the Medico-Chirurgical Society of the District of Columbia. Dr. Freeman, who is Professor of Neurology of George Washington University School of Medicine and retiring President of the District Medical Society, spoke on "Psychosurgery."

Dr. Fred L. Soper, Director of the Pan American Sanitary Bureau, Regional Office of the World Health Organization, returned from the World Health Assembly in Geneva, Switzerland, May 21, on the fastest direct flight ever made by a commercial airplane between Paris and New York. The flight was made in 13 hours, 50 minutes.

In the afternoon of May 23, Dr. Soper delivered a lecture at the Harvard School of Public Health on the subject of yellow fever; in the evening he conducted a seminar at the School on mass vaccination. Dr. Soper is a leading authority on yellow fever and technics for its control and eradication.

Dr. James A. Gannon has been reappointed member of the Board of Education of the District of Columbia for another three-year term. The announcement was made by Chief Judge Bolitha Laws of District Court on June 26. Dr. Gannon has served on the School Board since 1940. During the past year he has been Vice President of the Board and Chairman of the Finance Committee.

Dr. Fred O. Coe received an honorary degree of Doctor of Science from Ohio Wesleyan University of Delaware, Ohio. Dr. Coe was formerly Professor of Radiology at Georgetown University School of Medicine and is a Fellow of the American College of Radiology. He is associated with the firm of Groover, Christie, and Merritt at 1835 Eye Street, N.W.

Dr. Monroe J. Romansky, Associate Professor of Medicine at George Washington University School of Medicine, was honored by the Weaver High School Alumni Association of Hartford, Conn., July 3, as the outstanding graduate in the 26-year history of the School. Dr. Romansky was presented with a scroll and his name has been inscribed on a permanent plaque to be located in the School hall. Dr. Romansky received his medical degree from the University of Rochester School of Medicine. For his work on penicillin at Walter Reed General Hospital during the War he earned the Legion of Merit.

Dr. George C. Ruhland resigned his position as Executive Director of the District Division of the American Cancer Society, May 1. **Dr. Peter D. Comanduras,** former Medical Director of the District Division, is acting director until a successor can be named.

Dr. Walter A. Rath has been appointed to the District Board of Dental Examiners, to succeed Dr. Joseph R. Palkin, whose term expired on July 1. Dr. Rath, who is an Associate member of the District Medical Society, was the first choice of the District Dental Society for this appointment.

Dr. Jacob J. Weinstein addressed the Second Annual Convention of the International Academy of Proctology, which met at the Bellevue Hotel in San Francisco, June 23 and 24. His paper was entitled, "The Nutritional Management of Patients with Colon Surgery."

Dr. Monroe J. Romansky was reëlected co-Vice Chairman, **and Drs. R. Lyman Sexton and J. Ross Veal,** members of the Executive Committee, of the citizens' **Committee Against Venereal Disease,** which held election of officers on June 21. The radio news commentator, Gunnar Back, is Chairman of the Committee and Ray Everett, Executive Secretary of the Social Hygiene Society, Secretary. The Committee designated July 1 as V.D. Day.

The District Commissioners have named **Dr. Thomas E. Griffin** staff psychiatrist at the Bureau of Mental Hygiene and the Alcoholic Rehabilitation Center. A graduate of the University of Buffalo Medical School, he was in private practice in Buffalo until the War, and returned there after serving in the Army Medical Corps for three and a half years. Since July 1, 1948, he has been a staff member at St. Elizabeths Hospital.

Dr. Daniel L. Finucane, Superintendent of Glenn Dale Sanatorium, was honored by a reception at Glenn Dale, June 30, in recognition of his twenty years of service there. The reception was attended by staff members and District officials, including Health Officer Daniel L. Seckinger.

Dr. Finucane was appointed assistant resident physician of the District's tuberculosis hospital, July 1, 1930, when such cases were hospitalized at Upshur Street Hospital. In 1937, when hospitals were transferred from the Public Welfare Department to the Health Department, Dr. Finucane was made Assistant Superintendent of the Sanatorium. He has been Superintendent and Medical Director since August 1, 1939.

Dr. J. Ross Veal was elected President of the Society for Vascular Surgery at its 4th Annual Meeting in San Francisco, June 25. Dr. Veal, who has served previously as Secretary of the Society, presented a paper before the meeting on "Acute Massive Occlusion of the Venous System of the Lower Extremities."

Dr. Dean M. Hayes has accepted a directorship at St. Luke's Hospital, Milwaukee, Wisconsin. Dr. Robert F. Dow, who has been associated with Dr. Hayes in the practice of physical medicine and rehabilitation at 1726 M Street, N.W., will continue the practice at that location.

Dr. Joseph E. Smadel, Chief of the Virus and Rickettsial Department of the Army Medical Department Research and Graduate School, was awarded an honorary Master of Science degree by Yale University during commencement exercises in June.

Dr. E. Parker Luongo, Medical Director of the General Petroleum Corporation at Los Angeles, Calif., and an Associate member of the District Medical Society, has been elected President of the Western Association of Industrial Physicians and Surgeons. Dr. Luongo was Vice President of the Western Association last year and has also previously served as a director of the organization.

Dr. J. E. Ash has been appointed Director of Clinical Laboratories at Suburban Hospital.

Dr. Ash was commissioned in the Medical Corps of the Regular Army in 1916 and served continuously until December 1946, when he retired with the rank of Colonel. During his last ten years of Army service, Colonel Ash was Director of the Army Institute of Pathology (formerly the Army Medical Museum) in Washington, D.C. After his retirement he was made Scientific Director of the American Registry of Pathology, a Division of the Army Institute of Pathology. He is presently associated with the Hunter Laboratories in Washington as consultant in pathology and tropical diseases.

Dr. Rene Cailliet, who was Medical Supervisor of the Kabat-Kaiser Institute in Washington has moved to the West Coast, where he will be associated with the Institute in Santa Monica, California. The Institute in Washington will be directed by **Dr. Jean J. Vivino.**

Dr. Edward B. Tuohy addressed the New Jersey State Medical Society at its annual meeting in the Haddon Hall Hotel, Atlantic City, May 22. The subject of his address was "The Choice of Anesthesia in Operative Obstetrics and Gynecology."

Drs. Hill Carter and Robert E. Moran were among the speakers at the scientific session of The Association of Surgeons of the Southern Railway System, which held its 49th annual meeting at the Hotel Statler, May 25 and 26.

Dr. Ralph Grafton Smith has been appointed chief of the new drug section of the Division of Medicine, Food and Drug Administration. Dr. Smith was formerly Professor and Chairman of the Department of Pharmacology at Tulane University School of Medicine.

Dr. T. McDowell Anderson writes from Dallas, Texas, that he is residing and practicing there. Dr. Anderson has resigned from Active membership in the District Medical Society.

Mr. John Rhodes, Executive Secretary of the Dade County Medical Society, Miami, Florida, was a recent Medical Society visitor. He inspected the building and showed considerable interest in the operations of MEDICAL BUREAU.

Mr. Donald B. Darling, graduating medical student of Georgetown University School of Medicine, was awarded the James A. Cahill Medal, June 8. The medal and a check for $50 were presented to Mr. Darling by Mrs. Cahill in presentation ceremonies in the office of Dr. Robert J. Coffey, Professor of Surgery.

This award commemorates the late Dr. Cahill, Professor of Surgery at Georgetown, and is presented annually to the graduating student who has written the best thesis on surgery during his senior year. The winning paper was entitled, "Resection in Pulmonary Tuberculosis."

Dr. Vernon Morse Padgett, Associate Medical Officer in Tuberculosis at Gallinger Municipal Hospital, has been appointed Director of the Bureau of Tuberculosis by the District Commissioners, which post was left vacant by the death of Dr. A. Barklie Coulter in December, 1949.

Dr. Padgett graduated in 1944 from Johns Hopkins Medical School. He served as a medical officer in the Navy the year following his internship at Lakeside Hospital, Cleveland. In 1946 he went to Bellevue Hospital in New York, where he had charge of patients on chest service and instructed students of Columbia University.

Dr. Padgett became resident physician in tuberculosis at Gallinger Hospital in July, 1948. A year later he became Associate Medical Officer in Tuberculosis and associate director of the medical staff in tuberculosis.

The special mid-century issue of the *Journal of the American Dental Association* contained the announcement of **Dr. C. Willard Camalier** as "dentist of the half century" for the District of Columbia. Dr. Camalier received his degree in dentistry from George Washington University in 1912. He served as Secretary-Treasurer of the District Board of Dental Examiners for 14 years. He is Past President of the American Dental Association and the District Dental Society, and is now Assistant Secretary of the ADA. He is an Associate member of the Medical Society of the District of Columbia.

Dr. Camalier was commencement speaker at graduation exercises, May 26, for 41 Reserve and National Guard dental officers at the Army Medical Center. His address was entitled "Dentistry on the March."

MEMBERSHIP

The following applicants for membership were duly elected to membership at the meeting of the Executive Board, May 22, 1950, in accord with Amendment XI, Section 2, of the Constitution and By-laws of the Society.

Active Members

John R. Conley, 2222 Cathedral Avenue, N.W.
Louis A. Craig, Jr., 2700 Connecticut Avenue, N.W.
William E. Nessell, 1817—23rd Street, S.E.
P. Joseph Pesare, 2622 Spencer Street, Silver Spring, Md.
William F. Simpson, Jr., 148 Danbury Street, S.W.
Anna R. C. Todd, 7274 Palmer Road, S. E.

Associate Member

George P. George, 2616 Spencer Road, Chevy Chase, Md.

Affiliate Member

Oscar Lavine, 1801 Eye Street, N.W.

Resident-Intern Member

Ira W. Pearlman, 4419—17th Street, N.W.

The following applicants for membership were duly elected to membership at the meeting of the Executive Board, June 19, 1950, in accord with Amendment XI, Section 2, of the Constitution and By-laws of the society:

Active Members

James D. Carter, 2025 Eye Street, N.W.
Aram Glorig, Jr., 200 East Indian Spring Drive, Silver Spring, Md.
Elizabeth Harman Hill, 2300 Connecticut Avenue, N.W.
Don D. Jackson, 3315–16th Street, N.W.
Charles Henry Nash, Jr., 2513 Arundel Road, Mt. Rainier, Md.
Angel E. Salazar, 4603–48th Street, N.W.
Marshall C. Sanford, 1801 K Street, N.W.

Associate Members

Ralston H. Adams, 8501 Old Bladensburg Road, Silver Spring, Md.
Dorothy Gill, 7011 Arlington Road, Bethesda, Md.

Affiliate Members

Wallace E. Baker, 108 North Washington Street, Alexandria, Va.

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received.

Rehabilitation of Hearing—A Guide to the Modern Differential Diagnosis and Treatment of Hearing Disorders. Victor L. Browd, M.D., Adjunct Professor of Otolaryngology, New York Polyclinic Medical School and Hospital; Associate Otolaryngologist, Midtown Hospital. Pp. 38. New York: Doho Chemical Corp., Auralgan Research Division, 1950.

The Mask of Sanity. An attempt to Clarify Some Issues About the So-Called Psychopathic Personality, 2nd ed. Hervey Cleckley, M.D., Professor of Psychiatry and Neurology, University of Georgia School of Medicine, Augusta, Georgia. Price, $6.50. Pp. 569. St. Louis: Mosby, 1950.

A Textbook of Gynecology, 6th ed. Arthur Hale Curtis, M.D., Emeritus Professor and Chairman of the Department of Obstetrics and Gynecology, Northwestern University Medical School; formerly Chief of Gynecological Service, Passavant Memorial Hospital, Chicago; and John William Huffman, M.D., Associate Professor of Obstetrics and Gynecology, Northwestern University Medical School; Attending Gynecologist, Passavant Memorial Hospital, Chicago. Price, $10.00. Pp. 799, with 466 illustrations, chiefly by Tom Jones, including 37 in color. Philadelphia: Saunders, 1950.

Having a Baby—A Guide for Expectant Parents, revised ed. Alan Frank Guttmacher, M.D., Associate Professor of Obstetrics, Johns Hopkins University; Visiting Obstetrician, Johns Hopkins Hospital; Chief of Obstetrics, Sinai Hospital, Baltimore. Illustrated by Leon Schlossberg, Department of Medical Art, Johns Hopkins Medical School. Price, 25 cents. Pp. 191. New York: New American Library, 1950.

Medical Diagnosis—Applied Physical Diagnosis, 2nd ed. Edited by Roscoe L. Pullen, M.D., F.A.C.P., Professor of Graduate Medicine, Director of the Division of Graduate Medicine, and Vice Dean of the School of Medicine, Tulane University of Louisiana; Senior Visiting Physician, Charity Hospital of Louisiana at New Orleans; Consultant in Medicine, Veterans Administration Hospital, New Orleans, Louisiana; Consultant to the Surgeon General, Department of the Army, Washington, D. C. Price, $12.50. Pp. 1119, with 601 figures, 48 in color. Philadelphia: Saunders, 1950.

BOOK REVIEWS

Pollen Slide Studies. Grafton Tyler Brown, M.D., F.A.C.P., Instructor in Clinical Medicine, Georgetown University School of Medicine; Consultant on Allergy, United States Public Health Service; Head, Division on Allergy, Doctors Hospital, Washington, D. C., with a Foreword by Wallace M. Yater, M.D., M.S. (in Medicine), F.A.C.P., Director, Yater Clinic; Civilian Consultant, Army Institute of Pathology and Walter Reed General Hospital; formerly Professor of Medicine, Georgetown University School of Medicine, Washington, D. C. Price, $6.00. Pp. 112. Springfield, Ill.: Thomas, 1949.

This veritable atlas of the important hayfever pollen grains and larger fungus spores that are present in the air was prepared by a member of our own Society; the foreword was written by the Editor of this journal.

The technic of preparing and studying pollen slides is fully presented and the influence of weather on pollination is discussed. A detailed chart of pollen counts for the District of Columbia for two representative years is included.

There are 182 separate drawings of pollen grains and fungus spores in addition to 35 photomicrographs. The details of the above are clear and the explanation accompanying each is simple and instructive. This material is included in only a few texts on allergy.

Although the studies were conducted in the District of Columbia, the information contained in this manual should enable the interested individual in any locality to do pollen studies.

The book is excellently printed on glossy white paper.

As the title implies, this monograph contains nothing more than pollen slide studies, but the material is well presented. It will find its chief value as a reference to those doctors and technicians interested in allergy.

Ellis April, M.D.

Handbook of Obstetrics and Diagnostic Gynecology. Leo Doyle, M.S., M.D. Illustrated by Ralph Sweet. Price, $2.00. Pp. 240. Palo Alto, Calif.: University Medical Publishers, 1950.

This handbook presents in a concise, systematic manner the beliefs and teachings of one of our large medical centers. The book is primarily intended as means of quick, easy reference for the everyday problems of obstetricians and gynecologists.

The obstetrical portion of the book follows the conservative policy which is taught in the majority of university clinics. Perhaps because of the necessity for briefness in this type of handbook the words "always" and "never" occur occasionally. Sometimes things do not "always" happen as we are told they should, and others may obtain good results by doing just the opposite of what we are told to "never" do.

The book is completely up to date and the newer antibiotics and drugs are given full consideration in the treatment of various conditions. The gynecologic portion of the book is concerned with diagnosis and office procedures, all operative technic being omitted, as it should in a work of this type.

Finally this book fills the need for an inexpensive, pocket-size, systematic set of principles of obstetrics and gynecology. It will appeal to medical students, interns and residents. It should also appeal to general practitioners who are interested in better care for their obstetric and gynecologic patients.

J. B. Sheffery, M.D.

A Manual of Cardiology, 2nd ed. Thomas J. Dry, M.A., M.B., Ch.B., M.S. in Medicine, Associate Professor of Medicine, University of Minnesota (Mayo Foundation); Consultant in Section on Cardiology, Mayo Clinic. Price, $5.00. Pp. 355, illustrated with 97 figures. Philadelphia: Saunders, 1950.

This is the revision of this popular student book, first issued in 1943. A lot more emphasis on electrocardiography is made in this edition. Excellent plates, X-rays and electrocardiograms. Its chief appeal would be to medical students or doctors cramming for examinations.

N. J. C.

Medical State Board: Questions and Answers, 8th ed. R. Max Goepp, M.D., formerly Professor of Clinical Medicine, Graduate School, University of Pennsylvania, and Professor of Medicine, Woman's Medical College of Pennsylvania, and Harrison F. Flippin, M.D., Associate Professor of Medicine, Graduate School, University of Pennsylvania. Price, $7.00. Pp. 663. Philadelphia: Saunders, 1950.

This book is quite adequate for its purpose of preparing prospective examinees for basic science and clinical examinations of Medical State Boards, and probably the first two parts of National Boards. This revision, the eighth, has the advantage of editing by a board of six specialists who have reviewed the data applying to their respective medical specialties. The editorial board, like the authors, is chosen from the faculties of two of the medical schools in Philadelphia. The total number of pages has been increased by only twenty over the previous edition and yet a new section on psychiatry and other revised and new data have been added. The index and table of contents are distinct aids. Almost all data are given in discussion-type answers.

This would be best purchased by hospital and medical school libraries for use of students and physicians taking Medical State Board or National Board examinations.

ELBERT T. PHELPS, M.D.

Mitchell-Nelson Textbook of Pediatrics, 5th ed., edited by WALDO E. NELSON, M.D., Professor of Pediatrics, Temple University School of Medicine; Medical Director of St. Christopher's Hospital for Children; with the collaboration of Sixty-three Contributors. Price, \$12.50. Pp. 1658, with 426 illustrations (19 in color). Philadelphia: Saunders, 1950.

The recently published edition of Mitchell and Nelson's Textbook of Pediatrics is a welcome successor to the one published about four and a half years ago. It is somewhat confusing that these books are the fourth and fifth editions respectively, rather than the first and second editions. The explanation lies in the fact that the Mitchell and Nelson texts are successors to the Griffith and Mitchell ones.

The first Mitchell and Nelson met with immediate and wide popularity among medical students and physicians having any interest in pediatrics. The present book maintains the same fine quality of the original with numerous improvements achieved by revision, complete rewriting and incorporation of recent developments in all related fields.

The approach of the book is to the problems of the child as a whole being, functioning as such, with a total intermeshing of his parts. The sections on Growth and Development and Educational Problems keep the book in step with the direction of understanding of people which has been developing over recent years. The material in all of the chapters, including those on the well child, the sick child, and on the specific diseases, is concise, clearly stated and very readable. For the student the book is an ideal reference because of its directness and clarity. Many students will find that in parts the book augments their reading in Internal Medicine. For house staff members and practising physicians Mitchell and Nelson is a never-failing reliable source of wide and exact information.

The great importance of the book, in repetition, lies in its approach to the understanding of the well and the sick child as a whole and in his relationship to his family, his community, his school—all with a full realization of the importance of satisfying his needs and influencing him in such a way that he may become a healthy, productive, mature adult.

M. JANE HOWELL, M.D.

Cardiovascular Disease: Fundamentals, Differential Diagnosis, Prognosis and Treatment. LOUIS H. SIGLER, M.D., F.A.C.P., Attending Cardiologist and Chief of Cardiac Clinic, Coney Island Hospital; Consulting Cardiologist, Rockaway Beach Hospital; Consulting Cardiologist, Menorah Home and Hospital for the Aged. Price, \$10.00. Pp. 551, with 149 figures. New York: Grune & Stratton, 1949.

This is another book on the basic fundamentals of heart disease; the author attempts to cover all the problems a cardiac consultant would be called upon to meet. For a standard text it is just as good as the others.

Considerable space is given to explanations of the physiologic phenomena involved and that is its outstanding feature. Electrocardiography, however, is not discussed in any detail.

The chapters on heart failure and the "Essential Anatomic Features of the Cardiovascular System" are particularly good. The Schlesinger plates showing the coronary system and its anastomoses are excellent.

Another nice feature is that the reproductions of X-rays are accompanied by detailed diagrams.

N. J. C.

Shearer's Manual of Human Dissection, 2nd ed. CHARLES E. TOBIN, PH.D., Associate Professor of Anatomy, The University of Rochester School of Medicine and Dentistry. Price, \$4.50. Pp. 286, with 79 illustrations. Philadelphia: Blakiston, 1949.

I was impressed by the excellent job the printers have done in the construction of this book. The arrangement of the manual is such that a student deals first with the easiest portion of the body, namely, the pectoral region. The author emphasizes the important regions and portions of the body by large print. Unlike many dissecting manuals, the instructions proceed gradually from one organ or part to another; all extraneous discussions and confusing references to previous dissections have been removed. The illustrations, while they are clear and well marked, are not enough in number and could be improved with color.

PHILIP A. CAULFIELD, M.D.

CHARLES FULLER KINCHELOE, M.D.
(1907–1950)

Dr. Charles F. Kincheloe, one of Washington's younger orthopedic surgeons, died, July 12, 1950, at Garfield Memorial Hospital of coronary occlusion. He was well known in athletic circles for his prowess on the football field and in boxing tournaments while a student at the University of Virginia.

Dr. Kincheloe was a native Washingtonian, born April 29, 1907. He attended Western High School and the University of Virginia School of Medicine, graduating from the latter institution in 1931. After two years' internship at Charity Hospital, New Orleans, La., he located in Falls Church, Va., where he maintained a general practice from 1933 to 1939.

In 1939 Dr. Kincheloe decided to specialize in orthopedic surgery and enrolled for a year's postgraduate study in that field at the University of Pennsylvania Graduate School. He continued his studies at the Hospital for Ruptured and Crippled Children in New York, where he was Resident in Orthopedic Surgery for two years. World War II interrupted his career and he served for four years, 1942 to 1946, in the Medical Corps of the Army with the rank of Major. He was Assistant Chief of the Orthopedic Section of the Kennedy General Hospital in Memphis, Tenn., and later Chief of Orthopedic Surgery of the 68th General Hospital in the European Theatre of Operations. He was also consultant in orthopedic surgery to the 804th U. S. Hospital Center in England.

Since October, 1946, he had maintained an office at 1801 K Street, N.W., Washington, devoting his practice exclusively to orthopedic surgery. He also practiced his specialty at offices in Arlington and Alexandria, Va. until early this year. He served on the staffs of Emergency, Arlington and Alexandria Hospitals.

Dr. Kincheloe joined the District Medical Society in May of this year. He was previously an Active member of the Arlington County Medical Society and an Associate member of the Alexandria City Medical Society. He was a Fellow of the American Medical Association, a diplomate of the American Board of Orthopedic Surgery, and a member of the American Rheumatism Society, the Virginia State Medical Society, the Lewis Mackall Medical Society, and the Washington Orthopedic Club.

Mrs. Suzanne Kincheloe, his wife, survives him together with two stepchildren, Suzanne and Thomas Hunter, all residing at their home at 329 Mansion Drive, Alexandria, Va. His mother, Mrs. Florence Kincheloe, and a sister, Mrs. Melvin Atkinson, both of Arlington, Va., also survive him.

MIRIAM FRANCES DUNN, B.A., M.A., Ph.D., M.D.
(1901–1950)

Dr. Miriam Frances Dunn, Washington psychiatrist, died, June 5, 1950, in Johns Hopkins Hospital, Baltimore, where she was hospitalized for surgery.

Dr. Dunn was born in Springfield, Mass., September 22, 1901, the daughter of the late Dr. Stephen J. Dunn and Mrs. Mary McKechnie Dunn, who is the only close survivor. Her formal education began in the public schools of Springfield, Mass. She received her B.A. degree from Smith College in 1921, her M.A. degree from Trinity College in 1922, and her Ph.D. degree from Catholic University in 1926. Two years later, 1928, she had completed her medical studies at Johns Hopkins University School of Medicine. She interned for a year in Memorial Hospital, Worcester, Mass.

Dr. Dunn served as assistant dispensary physician at Henry Phipps Psychiatric Clinic of Johns Hopkins Hospital for nine years, 1930–39. During the same years (1930–40) she was psychiatrist in charge of the Psychiatric Clinic for Children at Mercy Hospital in Baltimore. She began private practice in the District of Columbia in 1938. In 1942 she was appointed to the District of Columbia Commission on Mental Health, the first woman to receive such an appointment; she served on the Commission for several years.

She was elected an Active member of the Medical Society of the District of Columbia in 1941. She was a Fellow of the American Medical Association and a member of the American Psychiatric Association, the American Psychoanalytic Association, and the Johns Hopkins Medical Society.

Dr. Dunn was unmarried. She lived at 2032 Belmont Road, N.W., and maintained her office in her home.

MARTIN L. CANNON, M.D.
(1901–1950)

Dr. Martin L. Cannon, an Active Member of the District Medical Society, died unexpectedly at his home, 2900 Kanawha Street, N.W., on June 26, 1950.

Dr. Cannon was born in Cleveland, Ohio, November 5, 1901. He graduated in pharmacy from Western Reserve University in 1922. After spending a few years in this profession, he decided to study medicine and received his medical degree from the University of Maryland in 1932. For three years, from 1937 to 1940, he was engaged in general practice in Baltimore. In the latter year he moved to Washington, where he maintained an office for private practice at 2701—14th Street, N.W. In addition, he has been Chief Medical Officer of the District of Columbia Jail for about seven years.

Dr. Cannon had been affiliated with the Medical Society of the District of Columbia since 1943. He was also a member of the American Medical Association, the Jacobi Medical Society, and the Benjamin Franklin Masonic Lodge.

Two children, Deanna Lee, aged 12, and Samuel, aged 3, survive him together with his wife, Mrs. Jean Tucker Cannon. He also leaves two brothers, Howard J. Cannon, of Chicago, and Samuel Cannon, of Detroit, and a sister, Miss Tillie Cannon, of Washington.

Trends in Practice of Medicine—Hawley

(*Continued from page 422*)

not for one moment think that health insurance is at present a perfect institution either for patient or for doctor. But I believe firmly that it can be developed into a blessing for the doctor as well as for the patient. It will work some profound changes in medical economics, it is true, but we must be prepared to accept those changes or we shall have other changes forced upon us which will be much more distasteful.

In recent months there have been some encouraging indications that our people are beginning to react against the "creeping socialism" which the present Administration has tried so hard to force upon us. However, I am very much afraid that too many doctors will construe these few indications of reversal of trend as final proof of decisive victory, and will return to the very practices which have contributed so much to straits in which we found ourselves a year ago.

> "The Devil was sick, the Devil a monk wou'd be;
> The Devil was well, the Devil a monk he'd be."—*Rabelais*

Let me warn you that we cannot win this fight for ten years, but we can lose it any year. We may have enjoyed temporary success this year, but the slightest evidence of return to previous indifference to public opinion will again reverse the trend and the next time we shall not be so fortunate.

The only bulwark against the socialization of medical care is a system of voluntary health insurance which works to the satisfaction of the public. The only real danger to voluntary health insurance is the small proportion who always try to "kill the goose that lays the golden eggs." I think we must, for our own protection, take positive action in preventing this. The curious thing is that, if and when Government medicine comes, those who will scream the loudest will be the very ones who have done the most to endanger the free practice of medicine.

Chronic Arthritis in Reiter's Syndrome—Herzmark

(*Continued from page 430*)

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Exfoliative Cytology—Platt

(*Continued from page 427*)

working in cancer research that cancer is a malignant disturbance in the growth of cells. Hence, research studies centered on the nature of the malignant cell are timely. Also, it is logical to think that accurate evaluation of methods of cancer therapy may be best followed by studying changes produced in the cancer cells. Hence, cytologic technics are employed as a measuring tool in clinical research on cancer therapy.

SUMMARY

Cytologic examination is an old method which has undergone many refinements in the past few years. It has become an available and useful tool for the clinician as an aid in diagnosis and as a laboratory tool in evaluating the effectiveness of therapy. Methods of obtaining specimens from various sources and manner of reporting are described.

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Avulsion Fracture of Tibial Spine—Gordon

(*Continued from page 438*)

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(*Continued from Cancer Bulletin, page 8*)

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H S A News

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family's primary considerations are food, shelter, clothing, and provision for sickness. After those come the desirable, but less vital, benefits such as the educational and recreational activities provided by many of the Chest agencies. The 1950 allocation for the Hospitalization Fund was 13 per cent of the money raised in the Red Feather campaign. Had it been 17.5 per cent, every indigent sick child and adult could have been adequately cared for. It is the contention of some of the medical members of our corporate body that the deduction of the extra 4.5 per cent from the total allocations of the more than 100 Chest agencies for 1950 would have been too negligible to be felt by any one agency but might have restored the health or even saved the lives of the many who will have to be denied aid this year.

Our Living Past Presidents—Christie (*Continued from page 452*)

Church and Sunday School. For many years he was President of the Board of Trustees of American University. Two honorary degrees have been conferred upon him, Master of Science by Ohio Wesleyan University in 1919 and Doctor of Science by American University in 1943.

Although highly honored both at home and abroad, Dr. Christie has always remained the humble servant of society and medicine. Endowed with a kindly, helpful and sympathetic personality, he has listened patiently to requests, complaints, suggestions and problems from all strata of society. His wise counsel, enriched by a vast store of experience, has influenced the course of many lives.

He has always been a keen follower of Isaac Walton, and his greatest relaxation is trout fishing on his favorite lake in Northern Maine. Many of his Washington colleagues have enjoyed this pastime with him and have been mentally and spiritually refreshed by his delightful stories about the campfire.

Every person has some traits which set him apart from others—call it personality, character, or individuality, as you will. During a friendship extending over many years, which has brought us together over many problems, Dr. Christie has displayed consistently the highest attributes an individual can possess. He has a dogged persistency in getting at the truth, whether it is scientific, social or economic; he is generous to a fault, as many patients can testify; he is a gracious and entertaining host; his honor and integrity brook no compromise; and above all else, he is a Christian gentleman.

"His life is gentle; and the elements
So mix'd in him, that Nature might stand up
And say to all the world, 'This is a man!' "

FRED O. COE, M.D.
CHARLES STANLEY WHITE, M.D.

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MEDICAL ANNALS

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ANXIETY*

ROBERT A. COHEN, M.D.

Clinical Director, Chestnut Lodge Sanitarium, Rockville, Maryland

IN THESE days, when an eminent poet writes a work entitled "The Age of Anxiety," and an equally prominent composer sets it to music which becomes part of the repertory of famous symphony orchestras; when the movies depict the development of anxiety states in a variety of life situations, and The March of Time presents increasing anxiety as one of the pressing problems of modern life, we may tend to overlook the fact that psychiatrists have been concerned with the nature of anxiety only in comparatively recent years. In the textbook of psychiatry which I bought as a second-year medical student 18 years ago I find just 3 index references to anxiety; while in a treatise on psychosomatic medicine which was published 5 years ago there are 121 such references.

What is the meaning of this phenomenon? Are we simply calling by another name certain processes which were well recognized by older clinicians? Or are the frequency and intensity of anxiety manifestations increasing, not only in our patients, but in people at large? Have the changing tempo of the times, the advance of civilization, the decline in importance of family living, the approach of the atomic age placed us under increasing stress? Are the rising interest in religion, the current political unrest, the increasing preoccupation with spiritual and material security but reactions to this stress—to anxiety, in other words? All of these suggestions, and more, have been advanced by the ministers, the philosophers, the sociologists, the anthropologists, the psychologists, the political scientists, and many others who have turned their attention to this problem. Naturally, with such a variety of disciplines, we would expect to find that anxiety described by one might not always be that referred to by another.

Even among psychiatrists who deal largely with the medical aspects of this problem there is a certain vagueness and lack of rigorous definition of the nature of anxiety. You will find such statements as: "Fear and anxiety are but varying degrees of the same affect. Fear is anxiety in the face of recognized danger from without. Anxiety is fear in the face of unrecognized danger from within." Or, "Anxiety is a fear of danger usually from within; although it is said that a typical attack has nothing but somatic symptoms, there is usually a conscious fear." Or, "Anxiety is an emotional experience that is useful and normal. It mobilizes certain defenses which help the person digest the emotional experiences related to danger."

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* Presented at the Fifth Intensive Postgraduate Course, George Washington University School of Medicine, April 3, 1950.

When they see a patient who is tense, tremulous, restless and uneasy; who perspires excessively and who hyperventilates; who complains of palpitation, of nausea, of a feeling of a band across his forehead, of a lump in his throat, and of peculiar fluttery sensations in his abdomen; who states that he is apprehensive, even terrified, but who cannot define the source of his fear when confronted with such a patient, all psychiatrists would agree in the diagnosis of anxiety state. But when it comes to the more subtle manifestations of anxiety, situations in which, perhaps, the patient manifests some psychosomatic disorder, or some characteristic mode of behavior without even being consciously aware of the slightest degree of uneasiness, then we find that physicians differ in their concepts of what may be going on within the personality.

I propose to outline for you today a theory of anxiety which, though not universally accepted, is gaining increasing attention among psychiatrists and social scientists generally. It is a theory which in this area was developed and studied by Harry Stack Sullivan, but which certainly formed a part of Freud's thinking in his later years, and which was anticipated over a hundred years ago by such philosophers as Spinoza and Kirkegaard.

In somewhat oversimplified form, anxiety may be described as the exceedingly unpleasant anticipation of disapproval by a significant person. This experience is so intensely unpleasant that the person engages in a variety of defense mechanisms designed to avoid situations in which it is sensed that anxiety might be aroused, or to rid himself as quickly as may be of such anxiety as was experienced. In general these defenses operate by blocking out certain aspects of the situations which give rise to anxiety. If they are completely successful, the person experiences no anxiety. If they are partially successful, the person experiences anxiety in degrees of intensity which vary inversely in proportion to the success of the defense mechanism. From this point of view, anxiety can never be regarded as "useful," although it is "normal" in that no one is entirely free from it. This should be obvious, in that if a person must devote any part of his activity to a defense against anxiety, there is to that degree a decrement in the attention he can give to the resolution of the situation in which he finds himself. In other words, anxiety would be just about as useful as a broken arm is to a prize-fighter. He would know that his opponent who broke it was a powerful man; and he might decide that discretion was the better part of valor, and quit before he had his head knocked off; but in no sense could the experience be considered as a useful contribution toward his winning the bout.

Now, where does this anxiety come from; what are some of the common defenses against it, and how may we as physicians deal with the problems it poses?

The first statement, that it is the exceedingly unpleasant anticipation of disapproval by a significant person, requires some amplification. We can gain some understanding of the pervasive, deeply ingrained quality of the experience of anxiety by considering its development in infancy, even before there is a capacity to use words.

If we were to imagine what the world must be like to the newborn, it seems justified to assume that he has no awareness of a boundary between himself and the environment; that he has no sense of time, space or distance. From observation it appears that he does develop states of tension which can be relieved by putting him to breast, at other times by releasing confining clothing, or at still other times by picking him up and cuddling him. During the first few weeks of life, each time the infant reports his increased tension by a cry, he evokes a more or less appropriate response from the environment, and the state of tension is relaxed. However, this happy state of affairs soon ceases. He is put on a feeding schedule; his mother may be in another part of the home and cannot reach him immediately when he cries, and she soon decides that a certain amount of crying is good for him anyway. By this temporary frustration, by permitting the state of tension to persist, as well as by continued growth of the central nervous system, the infant comes to perceive that there is a limiting boundary between himself and the world about him. He becomes gradually aware of a self. There is going on also another type of experience with the mother. As are all human beings, she is subject to anxiety. She may have a certain repugnance at changing the infant's diaper, or she may be concerned over the thousand and one complications motherhood has made in her life. Whatever the cause, the observation has been repeated time and time again that the infant's experience with an anxious mother is not the same as that with a calm and relaxed mother; the anxiety is communicated. If the nursing mother is calm, the infant suckles, and the tension of hunger is soon relaxed. On the other hand, if the mother is anxious, the infant may suckle but the state of tension persists. The infant does not thrive. The pediatrician may be called in to change the formula, and this or that heroic measure may be taken. Here, then, is the beginning of what in later life is noted as a feeling of ease and increased self-esteem when tension is diminished; and of uneasiness and decreased self-esteem when a state of tension persists.

As the infant grows older, and particularly as some of his own activities (as for example, playing with feces or rolling near the edge of the bed) seem regularly to result in the appearance of an anxious mother, he begins to conceptualize the calm mother as the "good" mother and the anxious mother as the "bad" mother. Those activities and experiences in himself which bring the "good" mother to him become embodied as the "good me"; while those which bring the anxious mother become embodied as the "bad me."

All of this starts even before the child understands language, but as he gradually acquires the ability to crawl and walk and to use words, the scope and development of the "good me" and "bad me" proceed apace.

The mother acquires a retinue of helpers; activities which would provoke anxiety in the father, the teacher, and other significant people all are relegated to the "bad me." And from a very early age, the other person's presence becomes less and less necessary; that which would evoke anxiety if the significant person knew of it comes to evoke it in his absence. For example, a child has been taught that fighting under any circumstance is bad and will earn him the disapproval of his parents. He starts nursery school, and immediately becomes the victim of all his classmates. This state of affairs is intolerable in the school and the teacher urges him to fight back. Torn by a variety of conflicting drives, he becomes anxious, develops night terrors, eating problems, general irritability and tenseness, and is notably less mature and active in his play activities than he has been before.

Bear in mind that literally thousands of situations of this category have occurred with every one of us. And bear in mind also that the experience of anxiety is so intensely disagreeable that the personality takes vigorous action to rid itself from it. What, then, happens? First, as a result of manifold experiences of anxiety in one's interaction with significant persons about him, one develops a concept of self, the "good" self being made up of those impulses and action patterns which have brought general approbation, the "bad" self being made up of those impulses and action patterns which have brought general disapproval. Second, that which belongs to the bad self is kept out of awareness (is repressed or disassociated as much as possible). If the action pattern is one which is frequently evoked in the daily business of living, the defenses commonly employed against it become part of and characterize the personality. Let us assume, for example, that the child I referred to previously has grown to manhood without any corrective experiences in the course of his youth. We would find him, then, with a tendency to develop anxiety in any situation in which aggressive, hostile tendencies might be evoked in him. Depending, perhaps, partly on constitutional factors, and also upon a variety of environmental factors, we might find him a uniformly polite, courteous, but rather passive and distant person. He would never speak ill of anyone, would avoid all competitive situations at his work, in social situations, and even in sports. He would withdraw from any situation in which he might run the risk of experiencing anger. And if he could not withdraw—if, for example, he was being imposed upon by his employer, he would not notice that he was being unfairly treated. This type of character is epitomized as Casper Milquetoast. If, however, his tendency toward normal aggressiveness had not been completely repressed, he might experience a degree of tension without, however, being actually aware of any resentment toward his employer. The aggressive action pattern would give rise to anxiety which, without coming into awareness, might be expressed somatically, for example, by hypertension, at first benign, but later associated with the pathologic changes with which all are familiar. If such a patient came to one's office, and no somatic basis for the hypertension could be found, the patient would not be able to report that he actually felt resentment against his employer. Rather, in response to questioning, he would describe his work situation; he would tell how his employer worked him overtime without extra compensation, how he had cancelled his vacation when a new man asked for leave at the same time, and how he had been passed over for promotion. But to the doctor's comment that all this must have made him quite angry, he would honestly reply, "Why no! After all, that's an employer's prerogative." In yet another set of environmental circumstances, and particularly if the resentment came into awareness and was recognized on occasion, he might have developed into the so-called compulsive character. Such a person has a place for everything and keeps everything in its place. He is orderly and measured in all his activity. Spontaneity is entirely lacking lest a forbidden impulse spring forth and be acted upon. There might even be compulsive handwashing and a multitude of other rituals, the execution of which serve somehow to reassure the individual that all is under control and to keep his anxiety at a minimum.

I think I have said enough to indicate how a person's anxieties may determine his character, and the examples I have employed also show how the experience of anxiety cannot possibly be useful. If the individual had known that he felt resentful toward the employer who imposed upon him, and if he could have expressed his resentment without anxiety, there is, of course, no guarantee that the situation would have been altered, but, at least, all of the elements in it would have been clear, and the patient could have resigned his position or have accepted the situation, depending on actual circumstances. But in any event he would have been spared the somatic reaction or the crippling compulsive activity which oppressed him, and he would not have kept out of awareness the appreciation of the situation without which no alteration was possible.

We can also see from the foregoing why intense anxiety is such a catastrophic experience. It mobilizes the primitive parts of the personality which date back to earliest infancy; and, further, it threatens the existence of the very sense of identity of the self. One actually feels as if one were literally going to go out of existence.

The relatively stable and enduring patterns of reaction which comprise an individual's character or personality are naturally not successfully employed in every experience of anxiety. Most of us, at one time or another, utilize a host of so-called "mental mechanisms" to reduce anxiety. Among these are repression, projection, rationalization, regression, symbolization, displacement, denial, and condensation. These mechanisms are, I presume, common knowledge and I shall not define them at this point; they are described in every text. However, some of them will be illustrated in examples from clinical practice with which I shall try to point out some of the ways of recognizing and dealing with anxiety. First, a word about the diagnosis of anxiety. Obviously, it would not take an expert to recognize that the patient with the extreme symptoms described previously was in a severe anxiety state. However, it must be clear that under other circumstances the patient himself may not be aware of anxiety or even of increased tension, and the problem thus presented is notably more difficult. As I have pointed out, it appears that in the last analysis anxiety is the result of an interaction between two persons, and in the majority of cases it is most usefully brought to light again during the process of another interaction between two persons, one of whom is the patient, the other the physician. In other words, in establishing and validating the diagnosis of anxiety, the physician must function not only as a trained observer but also as a participant. He observes not only the patient's reactions to him, but also his own reactions to the patient; and frequently it is the latter which may give him the essential clue as to what is going on.

A study recently published by Jurgen Ruesch[1] gives an excellent example of what I an referring to. He recorded a series of 200 therapeutic interviews between patients and doctors. These were all played back to a large group of doctors. It was noted that when certain records were played, some doctors became tense, restless and uncomfortable; some of them had to leave the room; some became irritable, and there were spontaneous arguments as to the merits of this or that therapeutic manuever. On the other hand, the same group would listen with avid interest and occasional amusement to other records. It was noted that the records which produced the disturbance in the group of doctors were those in which the patient and/or the therapist manifested anxiety. Now, when these anxiety-evoking records were transcribed word for word and the transcriptions given to other physicians to read, very few noted any manifestations of anxiety in them. When this group then listened to the records, they immediately picked up the anxiety as had the others. Analysis of the records indicated that anxiety was communicated not so much by content but mainly by changes in the tempo, pitch and timbre of the voice and by sudden apparently irrelevant shifts in the direction of the interchange between patient and therapist. Similar findings have been made by workers who have made sound movies of therapeutic situatious. It is also found in such studies as these that when the therapist is asked to report what went on in the therapeutic interview, there are frequently important omissions which are quickly picked up when the record is played. In such instances, the therapist himself experiences anxiety in listening back to the record, which would indicate that during that interview he was functioning more as a participant than as an observer.

Once anxiety is diagnosed either by observation of a defense mechanism employed by the patient or by the therapist noting his own response to the patient's activity, the physician must decide whether to permit or even to help the patient act out his defense mechanism, or whether to block the mechanism and attempt to bring the anxiety and the action patterns responsible for it into awareness. If he decides upon the latter course, then questions of timing and technic become important. A few examples may make the point clear.

Most of us have encountered examples of invalidism in our practice. A patient undergoes minor surgery, and then his convalescence is prolonged beyond all reasonable limits. Investigation of these cases frequently reveals that such patients are usually dependent, immature individuals who have felt insecure and oppressed by their responsibilities. In the hospital, after surgery, they have regressed somewhat; their dependent desires have been met by nursing care, and they find it difficult to leave the comfort of a hospital bed to resume the burdens of everyday life. However, most people in similar circumstances display at least a slight degree of regression. If the reaction is mild and occurs in a relatively independent, competent person, it would be indicated to give the patient support and reassurance in order to gratify his dependent needs until the anxiety evoked by the illness abates and he resumes his customary activity. In a less healthy character, however, other measures must be taken. If the physician has recognized the immaturity of the personality, and for one reason or another decides not to deal with that problem, he may at least avert or minimize an invalid reaction by keeping the patient as active as possible after operation, getting him out of bed at the earliest possible moment, and by prescribing only the absolutely essential nursing and supportive care. Of course, this may only delay a break unless the patient is so fortunate in his life experience as to gain self-esteem and security. But most frequently, psychotherapy may be necessary if any significant personality change is to be brought about.

An example from therapy shows how blocking a defense mechanism may lead to the recognition of anxiety and an expansion of the patient's field of awareness. A successful executive of a large corporation was under treatment for a character difficulty. Since his return from the War he had been particularly bitter about employee attitudes. He felt that they shirked their work, showed little or no initiative, had no loyalty for the company, and yet made increasingly outrageous demands for pensions and other benefits. As a matter of fact, in the particular instance under discussion, the therapist inwardly agreed with his patient. However, he also knew that the patient was not recognizing certain dissatisfactions with his marital and family life. Further, the history indicated that this patient, the elder of two brothers, had been sharply disciplined by his parents, and had been rather precocious in the assumption of independence and responsibility for his welfare. Earlier, the patient had reported, quite without resentment, how his younger brother had been permitted to do everything he, the patient, had been punished for doing, and had noted that he had nothing much to do with his brother, whom he regretted had been spoiled by their parents. By pointing out the obvious parallels between the work and home situations, this patient became aware of the displaced resentment against his parents for their harsh treatment of him; from that, certain aspects of the current home situation were opened up, and the patient's general effectiveness increased as he saw and dealt with previously unrecognized factors in his life situation.

In conclusion, I should like to point out two common types of errors in the diagnosis and treatment of anxiety. The first is that of making a correct interpretation at the wrong time or, to be more general, of attacking the defense mechanism head on. If one blocks a defense mechanism, the resolution of which will reveal to the patient that he is even more of a wretch than he thinks he is, the patient will either leave therapy or the defense mechanism will be reinforced rather than resolved. As an example, if at an early therapeutic interview the physician brings to a patient's awareness hitherto unrecognized hostility against a brother on whom he is financially dependent, he has placed the patient in the position of a dog who bites the hand that feeds him. This would be intolerable, and if he is to continue seeing the doctor, the patient will now undertake to prove that his resentment toward his brother is justified, meanwhile maintaining the dependency and making no improvement. In such situations the dependency must be resolved before or simultaneously with the exposure of the resentment.

The second error is to mistake manipulation for communication. As an example of manipulation in everyday life, we can consider the after-dinner speaker. Traditionally he starts his talk with a joke. Every speaker feels some tension in

(*Continued on page 541*)

DIAGNOSTIC AIDS IN CORONARY DISEASE USING EXERCISE WITH MULTIPLE CHEST LEADS

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THE differential diagnosis of epigastric and thoracic pain may at times present a difficult problem. It is well known that a normal resting electrocardiogram does not exclude coronary artery disease. Also, other conditions, such as gallbladder disease, neurocirculatory asthenia,[1] excessive stimulation of the sympathetic nervous system, posture, eating, convalescence, etc., may produce T-wave changes (changes in the direction of repolarization) which are probably not due to organic disease of the coronary vascular bed, especially if related to exercise.

The usual concept of coronary artery occlusion and myocardial infarction as a dramatic clinical picture with severe pain, apprehension, dyspnea, collapse, with usual physical signs of fever, gallop rhythm, friction rub, leukocytosis, and elevated sedimentation rate should be modified. It should be appreciated that myocardial infarction may occur without coronary occlusion and probably that occlusion can occur without infarction. Myocardial infarction may occur at times without symptoms of sufficient severity to disturb the patient or the doctor. Painless infarction has been estimated to be as low as 4 per cent and as high as 61 per cent.[2] My experience would suggest that the percentage is appreciable, but symptoms such as epigastric discomfort, excessive bloating, and bizarre chest pains should be looked upon with suspicion.

Fagin and Chapnick[3] evaluated a group of 100 ambulatory patients with definite evidence of myocardial infarcts. Of this group 52 had typical acute attacks of acute infarction. Forty-one patients did not have typical acute episodes but had other manifestations of heart disease, such as angina of effort, decompensation, etc., and 7 had no symptoms referable to the heart.

In aviation opinions on a candidate's ability to withstand high altitudes without oxygen are frequently being asked; and opinions based on resting electrocardiograms often leave much to be desired.

It has become increasingly evident that a more accurate test for measuring adequacy of the coronary circulation would be of tremendous value, especially if a reasonable degree of standardization of criteria could be devised. Two such tests have been generally used: (1) the anoxemia test[4] and (2) the exercise test.[5] The results of both these tests are somewhat comparable in large groups, but some individual variations have been reported. There have been conflicting claims by proponents of both tests, and a great amount of work still remains to be done to establish the validity of these procedures.

The anoxemia test requires tanks of oxygen and nitrogen, and special equipment must be utilized. Also, unfavorable reactions seem to be more common than with simple exercise. Pulmonary edema and death from cardiac arrest has been reported to result from anoxemia tests.[6] The exercise test is relatively simple to perform; little equipment is necessary and reactions such as precordial pain, weakness and dyspnea have been rare in my experience.

In order to employ an easily adaptable amount of exercise, I have employed the Master "two-step" test, since this enables one to standardize the amount and rate of exercise which must be necessary to use for purposes of comparison in different individuals.[7] The present confusion of criteria for different tests may be partly due to the amount, type and rate of exercise employed. Master used criteria of (1) depression of more than 0.5 mm. of the RS-T segment in any lead, (2) changes in the T-wave to isoelectric or inverted except in Lead III, and (3) other changes, such as premature beats or significant arrhythmia, widening of QRS, large Q waves, and prolongation of the P-R interval. Others[8] have used criteria of 0.75 mm. depression of RS-T in standard limb leads and 1.5 mm. depression of RS-T in chest leads. T waves which become indiscernible or diphasic or inverted in Leads I, II, CF_4 or CF_5 are regarded as significant of positive tests. These workers also consider the development of frequent premature systoles and intraventricular and A-V block on exercise as indicative of a positive test. Still others[9] give even wider differences in criteria. Part of the confusion of criteria has resulted from the different reference points utilized in bipolar chest leads, and some disparity results from differences in the amount of exercise employed.

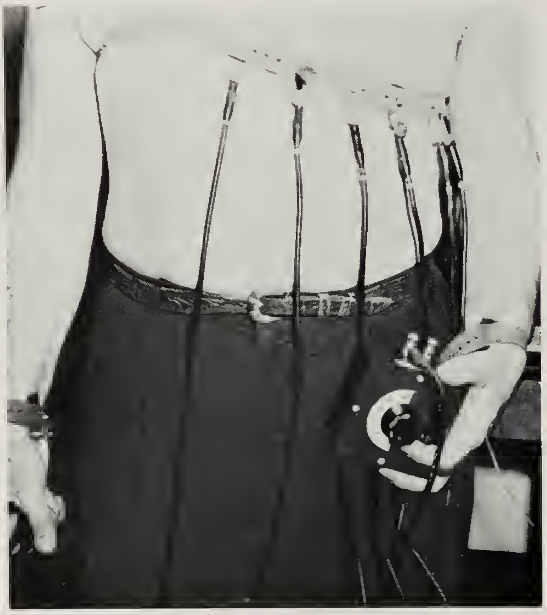

FIG. 1. Standard chest positions with switch attachment for multiple chest leads on exercise.

The popular use of the direct recording electrocardiograph machines with unipolar leads will certainly increase the popularity of the exercise test. Minor changes in the tracings can be detected while they are being inscribed, and position changes of unipolar electrodes can be made under direct vision.

Early in the program of exercise tests the criteria of Master were used with the standardized amount of exercise; however, the interpretation by others has been so conflicting in the literature as to be confusing. The amount of study done on normals with standard and double standard exercise has not been large; therefore, I decided to test a large number of normal persons for their reactions to exercise in order to establish proper validation for the existing criteria.

I sampled 258 supposedly normal adults between the ages of 21 and 64 and did resting electrocardiograms, using Leads I, II, III, AVR, AVL, AVF, and V_1 through V_6. A complete physical examination was done, and nearly all of the subjects were fluoroscoped. Any person with a blood pressure above 150/90 was excluded from this group as well as any with murmurs or symptoms of any kind relating to the cardiovascular system. All of the 258 supposedly normals had no evidence of heart disease in the history, on physical examination, or by fluoroscopy prior to the taking of the resting cardiograms, but 8 were found who presented definite evidence of previous myocardial infarction in the electrocardiograms. Thus, 250 clinically normal people were actually used. Of the 8 with evidence of previous infarction, 2 had no history of any type that could be used as a clue to the time of occurrence of the acute infarction. The other 6 people had histories of acute episodes, usually epigastric, compatible with infarction, but the diagnosis was not suspected either by patient or his doctor.

Since 30 of our normal controls were females, it was decided that this should be a separate study, since the results on exercise in females seem to be quite different from those of males, especially in double "two-step" tests. It has been difficult to get objective samples for testing, since many of our females had symptoms of neurocirculatory asthenia and therefore could not be considered normal.

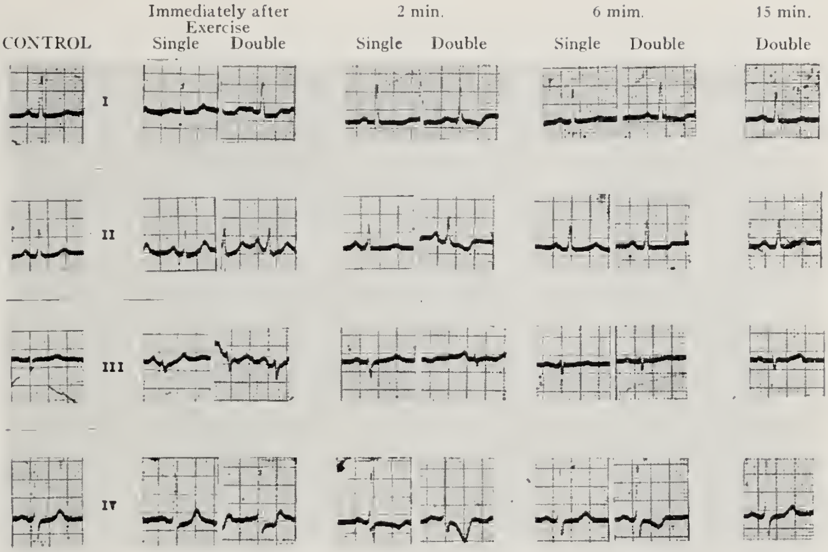

FIG. 2. C. M., aged 44. Diagnosis: angina pectoris. Positive changes on single test in Leads I and V_4 on April 15, 1949. Double test positive in Leads I, II and V_4 with more pronounced RS-T depression and T-wave changes with longer recovery period on April 16, 1949.

For evaluation of the effect of exercise I examined 220 normal males with single and double "two-step" tests. Single exercise tests were done in the morning and double exercise tests in the afternoon or on a later date. Double tests were taken at least 1 hour after any meal. In this way it was possible to evaluate the effects of different amounts of exercise. With each test, early in the series Leads I, II, III and V_4 were used, but later the electrode on the chest was placed over either V_4 or V_5 in order that it might be more accurately placed over the left ventricle. Tracings were taken immediately, 2 minutes after exercise, and 6 minutes after exercise. If baseline wandering was present in any tracing taken immediately after exercise, a tracing after 1 minute was taken. In summary, Master's criteria were valid for single exercise tests, i.e., in no supposedly normal person was the RS-T segment depressed more than 0.5 mm. in any lead if measured from the PQ or the PR segment.

In the double test 13 persons had depression of the RS-T segments in different leads up to 1 mm., and in nearly all the depressions were found to be in Leads II and V_4.

On reëxamination of these 13 patients after a 6-month interval it was found that 3 showed no evidence of RS-T depression and the other 10 showed exactly the same findings; however, no depression was over 1.0 mm. in any lead and there were no T-wave changes. In view of these findings the criteria for positive tests may be altered after further study of larger series of normals and abnormals. Until further time elapses and we can recheck the group of 13, it will be impossible to say whether these people are normal or whether they have coronary artery disease.[10]

Also, a few patients had premature beats at rest which disappeared on exercise except in 1 case. In no instance was there a normal resting electrocardiogram in persons who developed premature beats after exercise that were absent in the control record. Frequent premature beats after exercise have been seen fairly often in patients with coronary insufficiency; thus, this is an important finding.

As progress was made in developing adequate technics for exercise, it became obvious that patients with clinical evidence of coronary insufficiency did not always have positive tests, and it seemed logical to use more chest electrodes.

The localizing of myocardial infarcts is becoming much more specific by means of electrocardiography, especially since the work of Myers et al,[11] and since the employment of better autopsy technics. It seems reasonable that to find

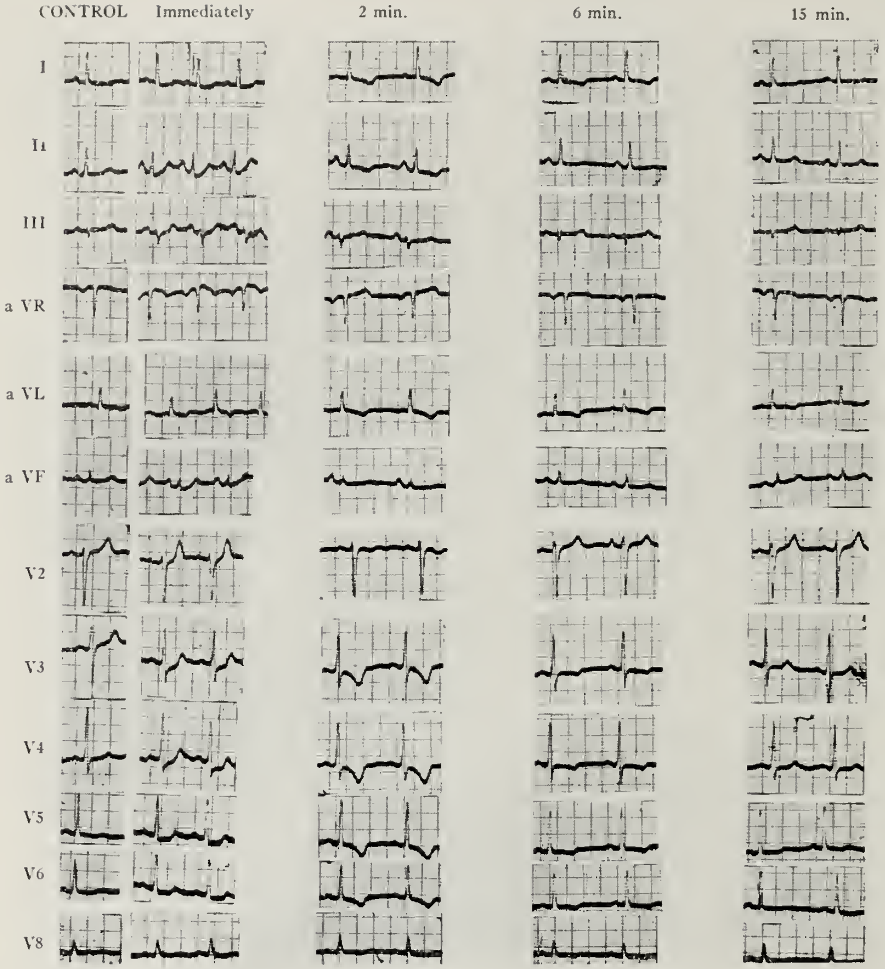

Fig. 3. C. M., aged 44, November 12, 1949. 12-lead exercise test. Positive in all leads except Lead III and AVL, which had inverted T-wave when resting.

evidences of smaller areas of ischemia on exercise one would have to utilize more than 1 chest electrode. This idea led to the development of a technic in which 6 chest electrodes can be utilized after exercise, first to test normals and later to locate different areas on the chest that might bring out changes generally missed when using only Leads V_4 or V_5.

A technic is illustrated in which we can now take 6 chest leads and 3 standard and 3 unipolar limb leads after exercise. A multiple chest lead selector switch is used in order that a 12-lead electrocardiogram can be made within 1 minute after the completion of exercise. This can be done easily with a single channel direct tracing machine (figure 1).

It has been logical to develop standard chest electrode positions for resting electrocardiograms, and the standardized positions developed by the American Heart Association have been of great value. However, it seems illogical to use standard positions of chest electrodes for research on exercise tests, although it is probably advisable to use 1 chest electrode for routine work. It would seem more logical to utilize the information gained from resting standard positions for the application of exercise chest electrodes to areas which would most likely show evidence of ischemia. In this way knowledge of heart position and rotation can be utilized to the greatest advantage. It seems as illogical to use 1 chest electrode on exercise as it is to use 1 chest electrode to make a diagnosis of infarction.

Theoretically, covering the heart areas in which infarcts usually develop would also be applicable to gain evidence of myocardial ischemia and injury currents. Thus the location of electrodes should cover the ventricular septum, and the anterior, lateral and posterior walls of the left ventricle. The posterior surfaces of the ventricle in horizontal hearts will probably be im-

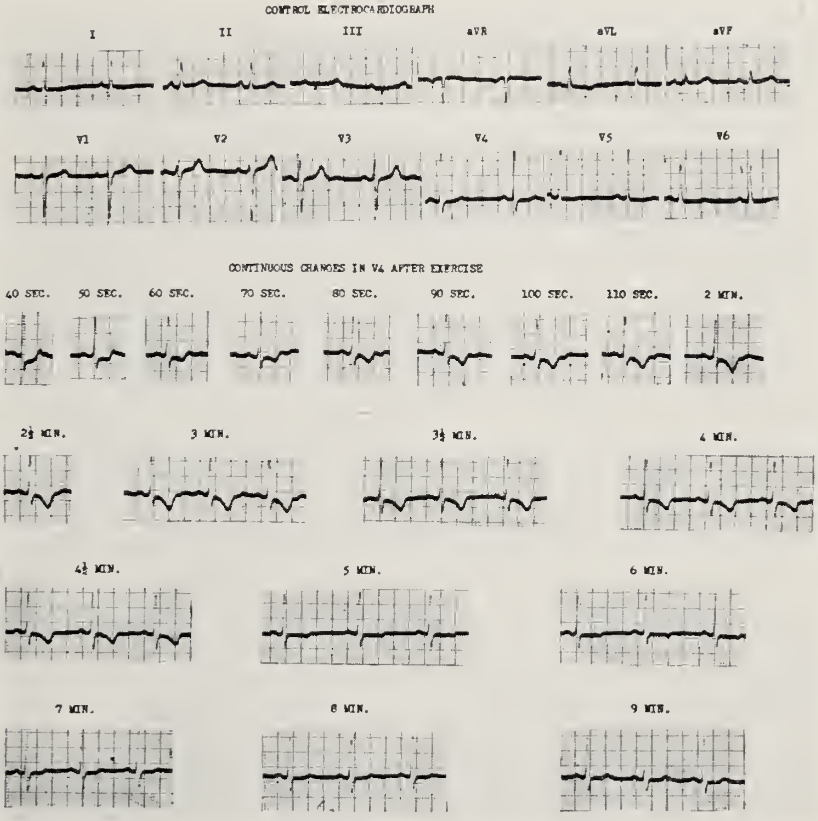

FIG. 4. C. M., aged 44, November 12, 1949. Progressive changes in T-waves until recovery. Note inverted U-wave present from 1 to 2 minutes after exercise.

possible to cover with the use of any standard unipolar leads. Esophageal electrodes would answer, but these would be impractical clinically for exercise tests. However, I believe that the more surface that is covered on the epicardium on exercise, the more accurate the test will be, provided small standard chest electrodes are used. Negative tests in coronary insufficiency for the most part will be due to inaccessibility of areas of ischemia to exploring electrodes or injury currents that neutralize each other. It is probable that neutralization of injury currents will be negligible if unipolar leads are used.

For practical purposes I used at first the standard chest positions on exercise, but it seems that covering the septum, lateral wall and anterior wall of the left ventricle could better be done by using electrodes in V_2 to V_4 areas dependent on rotation to cover the septum, V_4 to V_6 to cover the anterolateral wall of the left ventricle, and an electrode in V_6 position to cover high lateral-wall positions. At present we are using the sixth electrode in the right axilla to measure the difference between this area and AVR.

The use of 6 chest leads (V leads) after exercise has been gratifying. I have accumulated cases that show positive findings in only 1 lead, but in which the use of V_4 or V_5 positions alone would not have given as complete information. At present I am using a new technic of taking ballistocardiograms to crosscheck the exercise findings, and I am very hopeful that the ballistocardiograph will yield very valuable information.

ILLUSTRATIVE CASE

C. M., aged 44, a communicator at a large New York airport, complained only of a slight "sticking" sensation just under the left clavicle on exertion. At times he described the pain only as a "pins and needle" sensation. At no time was the pain severe or accompanied by any marked apprehension. It always occurred after eating or with some exertion. The blood pressure was 140/90. Fluoroscopy was negative, and the physical examination was not revealing. He was overweight at 210 lbs. On April 15, 1949, he had a normal resting electrocardiogram, but the single "two-step" test was positive with Leads I, II, III, and V_4. On the following day the test was repeated with the double test, and the result was much more pronounced (figure 2).

In November, 1949 a double "two-step" test was done with the multiple chest lead selector switch and 12 leads. At this time the electrocardiogram resting was abnormal, showing evidence of "strain" but none of infarction (figure 3). The recovery period was prolonged, and T-wave changes did not return to normal until 15 minutes had elapsed. Actually the recovery period was 8 minutes, as shown by checks with Lead V_4 at frequent intervals (figure 4). The changes in V_8 were much less marked.

This case demonstrates positive findings in nearly all leads except Lead III. In normals, peculiarly enough, T-wave changes in Lead III are so frequent that they should not be taken as signs of a positive test. In many cases of angina the findings are much less obvious than in this case. The case also illustrates the widespread electrocardiographic changes which are accompanied clinically by the mildest form of discomfort on exertion and certainly not classical in its description. When the reproduced electrocardiograms were taken there was no pain.

Summary

1. A simple technic for using multiple chest leads for rapid inscriptions of chest leads for exercise tests is presented.

2. The reasoning for the position of electrodes for the exercise test is discussed.

3. One case is reported to illustrate electrocardiographic changes with different amounts of exercise and progressive changes in recovery.

4. The need for accuracy in the diagnosis of coronary insufficiency is stressed, and the applications of multiple chest leads to increase accuracy are presented

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TREATMENT OF VENEREAL DISEASES*

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SYPHILIS

THE treatment of choice for syphilis today is penicillin. Exactly what penicillin schedule to use or what type of penicillin is a very difficult thing to say. At a recent meeting of the American Academy of Dermatology and Syphilology there was a special meeting of all the men who were particularly concerned with the treatment of syphilis in order to determine once and for all what adequate treatment is. This meeting was called because the European syphilologists would not accept penicillin therapy. Their argument was that the American syphilologists had so many different treatment schedules that none apparently was satisfactory.

At the meeting all the men were asked what they considered adequate penicillin therapy for syphilis and what they taught their students. The answers ranged from 1 injection of 4 c.c. of procaine penicillin in oil with 2 per cent aluminum monostearate to 10,000,000 units of procaine penicillin aqueous. This gives some idea of how difficult it is to define adequate treatment.

EARLY SYPHILIS

Penicillin

TAKE YOUR CHOICE†

Why Penicillin?	*Why Not Arsenic and Bismuth?*
1. Penicillin therapy is attended by essentially no serious toxic effects. Deaths: 0 to 0.007 per cent of cases treated (1 death with procaine penicillin in oil with 2 per cent aluminum monostearate; cause?).	1. Arsenic and bismuth therapy is often attended by serious toxic effects. Deaths: 0.045 per cent (routine) to 0.47 per cent (slow I.V. drip) of cases treated.
2. Case-holding problem—Minor 80† to 100 per cent‡ of cases complete therapy. † Outpatient ‡ Inpatient	2. Case-holding problem—Major Only 30 per cent of patients with early syphilis admitted to clinics for routine therapy received the minimum protective regimen.
3. Effectiveness A. Penicillin is highly effective in eradicating infectious syphilis. 1. Acceptable schedules of treatment have resulted in approximately 90 per cent satisfactory "cures" (secondary syphilis).	3. Effectiveness A. Arsenicals are highly effective, but only if adequate amount is administered. 1. When routine therapy is adequate, approximately 90 per cent satisfactory "cures" are achieved (secondary syphilis).

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* Presented at the Fifth Intensive Postgraduate Course, George Washington University School of Medicine, March 17, 1950.

† Courtesy of Federal Security Agency, Public Health Service, Division of Venereal Diseases.

2. Under acceptable schedules of treatment, approximately 75 per cent of cases of secondary syphilis are rendered seronegative by the end of the first year.	2. Approximately 70 per cent of cases of secondary syphilis are rendered seronegative by the end of the first year.
B. Penicillin is highly effective in preventing congenital syphilis regardless of duration of pregnancy.	B. Arsenic and bismuth are effective in preventing congenital syphilis providing the total course of therapy is administered before delivery.
4. Easy administration for both physician and patient, insuring maximum coöperation.	4. Difficult to administer; often painful to patient; responsible for lapses in treatment.

*Treatment of Syphilis with Crystalline Penicillin G; Results of Five Schedules with 21–24 Months' Post-treatment Observation**

Schedule of Therapy 2.4–4.8 million units every 2 or 3 hours	
Seronegative Primary	
Cases observed 21–24 mos.	140
Cumulative per cent re-treated	9.7
Per cent seronegative	90.2
Seropositive Primary	
Cases observed 21–24 mos.	207
Cumulative per cent re-treated	13.9
Per cent seronegative	84.
Secondary	
Cases observed 21–24 mos.	566
Cumulative per cent re-treated	15.7
Per cent seronegative	79.8

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* Courtesy of *VD Fact Sheet*, Division of Venereal Diseases, Office of Statistics, December, 1949, No. 6.

One-injection penicillin schedules. Several investigators, including the authors, are using 1-injection methods consisting of 4 or 8 c.c. of procaine penicillin in oil with aluminum monostearate. The initial results are very encouraging, but enough time has not yet elapsed to discuss "cure" rates.

Reinfection versus relapse. The distinction between reinfection and relapse is becoming increasingly difficult. With the shorter treatment schedules and the administration of treatment at an earlier stage in the disease reinfection is becoming more common. If the patient treated remains under close observation, it is relatively simple to distinguish reinfection and relapse. However, many patients are lost from observation for months and return when new lesions are present. In these cases a distinction between reinfection and relapse may be impossible.

In animal studies it has been shown conclusively that asymptomatic reinfection is possible in rabbits who have been previously treated for syphilis whether the serologic tests have returned to negative or not. We feel that this phenomenon probably occurs in human syphilis and may explain some of the previously unexplained serologic rises occurring in previously treated patients who have been re-exposed to early syphilis and in whom a new lesion cannot be demonstrated.

Aureomycin

Since January 1949 we have been using oral aureomycin in selected cases of syphilis. The details will be published in another paper. In general the results have been very promising in early syphilis and late skin syphilis. It is too early to predict cure rates or optimum dosage schedules.

As a public health method for controlling syphilis aureomycin does not add a great deal to our present methods for the following reasons:

1. It is an oral method and oral methods are not satisfactory in the average V.D. patient.
2. There is considerable toxicity to aureomycin in the form of nausea, vomiting and diarrhea, which makes it even less satisfactory for self-medication.
3. It is expensive.
4. It is a relatively long treatment. Our studies to date indicate that at least 8 days of therapy are necessary.

AUREOMYCIN IN SYPHILIS

Preliminary Report of 98 Cases Treated and Observed at Rapid Treatment Center, Gallinger Municipal Hospital, Washington, D. C.

DIAGNOSTIC CLASSIFICATION	NO. CASES	IMPROVED	UNCHANGED	FAILURE	NOTES
S-10 (Primary Syphilis)	22	8		5 (short)*	*Under 4-day schedules. 1 patient had gonorrhea and improved. 2 patients had chancroid and improved.
S-20 (Secondary Syphilis)	35	24	4	2 (short)* 4 (routine)	*Under 4-day schedules.
S-30 (Early Latent Syphilis)	23	15	5	1 (routine)	1 patient had chancroid and improved. 2 patients had granuloma inguinale and chancroid and improved.
S-40 (Late Latent Syphilis)	10	4	2		1 patient had granuloma inguinale and improved.
S-80 (Congenital Syphilis)	5	3	2		1 patient pregnant has shown improvement.
S-71 (Gumma)	3	3			

* Differences in figures exist because some patients have been lost for follow-up purposes while a number have been treated too recently to evaluate results.

Chloromycetin

Similar studies to those done with aureomycin have been accomplished with chloromycetin. In general the results have been similar to those seen with aureomycin. The advantage of chloromycetin is that the toxic reactions are much less. However, as a public health measure it raises the same objections as do aureomycin.

Terramycin

Studies have been begun with terramycin in syphilis. The initial results suggest that this drug is spirochetocidal.

LATENT SYPHILIS

Latent syphilis is very difficult to evaluate. In this type of syphilis we are treating a blood test, since the individual treated is otherwise apparently normal. Latent syphilis may vary considerably in duration, and therefore serologic response to treatment may be rapid, slow, or none.

The treatment recommended for latent syphilis is the same as that for early syphilis.

LATE CUTANEOUS SYPHILIS

Penicillin, chloromycetin and aureomycin are all very effective in late skin syphilis, but chloromycetin and aureomycin produce quicker and better healing in this disease.

CONGENITAL SYPHILIS

*Results of Treatment of Congenital Syphilis with Penicillin**

AGE OF CHILD AT TIME OF TREATMENT	SATISFACTORY PROGRESS 6–18 MONTHS POST-TREATMENT	UNSATISFACTORY PROGRESS 6–18 MONTHS POST-TREATMENT
Less than 6 months	95.7 per cent	4.3 per cent
6 mos.–1 yr., 11 mos.	75.0 "	25.0 "
2 years and over	61.4 "	38.6 "

* Courtesy of *VD Fact Sheet*, Division of Venereal Diseases, Office of Statistics, December, 1949, No. 6.

The optimum time to treat congenital syphilis is in utero. If this is not done, treatment in the first 6 months of life brings the best results. Penicillin is the agent of choice in early congenital syphilis.

In late congenital syphilis no treatment is very dramatic, and treatment resolves itself into the treatment of latent syphilis in those with no complications and the treatment of complications in cardiovascular or neurosyphilis.

Interstitial keratitis, a complication peculiar to late congenital syphilis, responds best to artificial fever therapy. We have seen interstitial keratitis develop in an uninvolved eye while the patient was on penicillin therapy.

NEUROSYPHILIS

Most observers now feel that fever therapy is unnecessary in the treatment of neurosyphilis. The long-range results indicate that penicillin alone, 4 to 6 million units given over a period of 15 days, is adequate therapy.

SYPHILIS IN PREGNANCY

*Results of Treatment of Syphilis in Pregnancy with Penicillin**

STAGE OF DISEASE AT TIME OF MOTHER'S TREATMENT WITH PENICILLIN	PER CENT OF TOTAL LIVE BIRTHS	
	Congenital Syphilis	Non-syphilitic
All Diagnoses	3.5	96.5
Primary and secondary	4.2	95.8
Early latent	2.1	97.0

* Courtesy of *VD Fact Sheet,* Division of Veneral Diseases, Offices of Statistics, December, 1949, No. 6.

The results with penicillin in the treatment of syphilis in pregnancy have been excellent in preventing congenital syphilis. The chief advantages over arsenotherapy are speed of administration and low toxicity.

Aureomycin and chloromycetin are effective in preventing congenital syphilis, but the small experience with these newer antibiotics makes it difficult to say how effective.

As for re-treatment of the mothers during subsequent pregnancies, we believe that re-treatment is unnecessary if the progress of the original infection is favorable. Re-treatment is indicated only if there are signs of serologic or clinical relapse.

Gonorrhea

The armamentarium for the treatment of gonorrhea is extensive, but control of this disease is very difficult. Repository penicillin in a single dose of 300,000 units is curative in most cases. Streptomycin, 1 gram given in a single injection, or aureomycin, 1 gram in a single oral dose, or chloromycetin, 1 gram given in a single oral dose, are very effective in acute gonorrheal urethritis. In spite of all this we have not made much of an impression on the gonorrhea rate. Apparently the disease travels more quickly than we can.

Chancroid

The use of sulfonamides, 1 gram given 4 times daily for 1 week, is very effectual in this disease. Dihydrostreptomycin, 5 grams in a single injection, has proven 100 per cent effective in our hands. Aureomycin, 0.5 gram every 4 hours for 4 days, and chloromycetin in similar dosage has proven curative in all cases so far treated by us.

Granuloma Inguinale

Our experience with this disease has been most encouraging with several forms of treatment. The treatment of choice, based upon our experience alone, is aureomycin, 30 to 60 mg./kilo/day divided up into 6 4-hourly doses daily for 12 days. Dihydrostreptomycin, 20 to 30 grams in 5 to 7 days, is very effective. Our experience with chloromycetin and terramycin has been meager, but the early results suggest that they will compare favorably with aureomycin therapy.

Lymphogranuloma Venereum

We have made little attempt to evaluate the newer antibiotics in this disease, because the evaluation is too difficult and too dependent on impressions rather than facts. In general, in the few cases treated with aureomycin and chloromycetin the results have been disappointing. It is our opinion that the sulfonamides are the treatment of choice in this disease.

CHOLECYSTOCOLIC FISTULA

Report of a Case

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Washington

FISTULAE between the gallbladder and another abdominal or thoracic organ are not frequently encountered in a surgical practice. Most of the cases reported in the literature have been collected in the larger clinics or groups throughout this country.

PATHOGENESIS

Erosion of the wall of the gallbladder occurs as a direct result of pressure applied to an area weakened by inflammatory changes or malignant degeneration. Chronic cholecystitis and a markedly contracted gallbladder are the usual operative findings in these cases. The presence of gallstones is not essential to the formation of an internal biliary fistula, but their absence is rare. It should be recognized that, when scarring and contracture of the gallbladder occurs, the probability of erosion of the walls is much greater if gallstones are present.

Inflammatory or neoplastic adhesions between the gallbladder and the other organ or organs to be involved must exist; otherwise, perforation into the free peritoneal cavity would occur. Once adherence of the two structures develops, erosion continues through the gallbladder wall until the stone, abscess or neoplasm pushes through into the lumen or parenchyma of the second structure. Once the fistula has been established, it rarely closes spontaneously. More frequently it remains patent until surgical repair or death supervenes.

Anatomically, the proximity of the duodenum and hepatic flexure of the colon to the gallbladder would predispose these two structures to be involved most frequently in internal biliary fistulae. The duodenum is involved much more often than the colon or any other organ. However, internal biliary fistulae may involve the common duct, stomach, jejunum, liver, diaphragm, lung or kidney. In 153 cases of internal biliary fistulae, Judd and Burden[1] found only 26 involving the colon. Numerous other cases of cholecystocolic fistula have been reported in the literature.[2, 3] The greater majority of these fistulae have been benign, and in most of them evidence of cholelithiasis has been present.

SIGNS AND SYMPTOMS

These vary greatly and may include all the signs and symptoms that occur with cholecystitis and cholelithiasis, from simple fatty indigestion and gaseousness to colic and other signs of biliary tree obstruction and liver damage. In cases of cholecystocolic fistula one may add infection in the biliary tree and hepatitis to the above signs and symptoms of abnormal function of the large bowel. If much bile is lost into the colon, the picture of a complete biliary fistula will be manifest. In this event abnormal fat and vitamin absorption, hemorrhagic tendencies, diarrhea, dehydration and an abnormal electrolyte balance will complicate the picture. It is not surprising then that the prognosis in these cases has been poor, and a high mortality is reported in the literature.

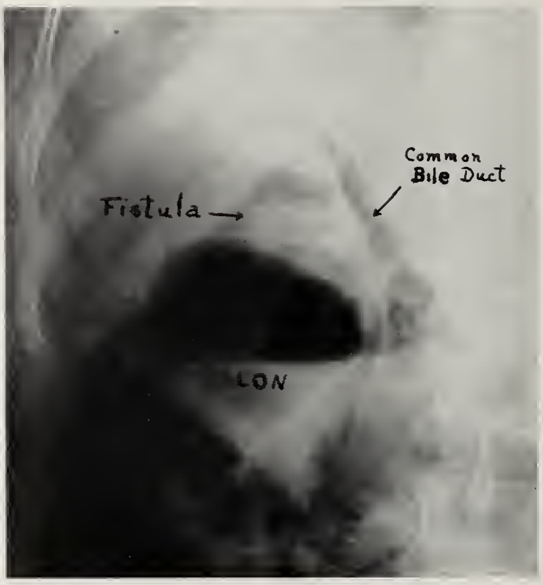


Fig. 1. Air choledochogram from gas in the colon.

Diagnosis and Treatment

The correct diagnosis of internal biliary fistula in general, or of cholecystocolic fistula in particular, is not usually made prior to surgery or autopsy. The passage of a large gallstone per rectum is suggestive of an abnormal outlet from the gallbladder. The presence of air in the biliary tree (figure 1) as shown in a flat X-ray plate of the abdomen is a very important finding denoting an abnormal connection between the bile passages and the gastrointestinal tract. The only preoperative pathognomonic finding in cholecystocolic fistula is the passage of barium into the gallbladder (and usually also into the bile ducts and duodenum) during the performance of a barium enema (figure 2).

The treatment of cholecystocolic fistulae is surgical. Preoperative preparation is of the utmost importance with regard to establishing normal equilibrium of body fluids. Decreasing the virulent bacterial flora of the colon with chemotherapeutic and antibiotic agents is advised. Early surgical correction of the fistula is essential to prevent a virulent cholangiohepatitis.

Report of Case

F. O., a 54-year-old white man, was first seen at his home on December 16, 1949. The chief complaint was obstipation of 4 days' duration. The onset was acute. The patient had what he considered to be a normal bowel movement the first day of his illness. That night he felt the desire for stool but was unable to expel any feces or gas. Upon the advice of his physician he took 3 ounces of mineral oil. No results were obtained during the night. The following 2 days the same dose of mineral oil was repeated daily with no results. Bloating, belching, progressive abdominal distention, and left lower abdominal cramping were successively noticed during the 3 days prior to his first examination on December 16. At this time the abdomen showed a moderate degree of distention and some rigidity and tenderness over the left lower quadrant. No masses or significant abdominal findings could be demonstrated. Digital, rectal and proc-

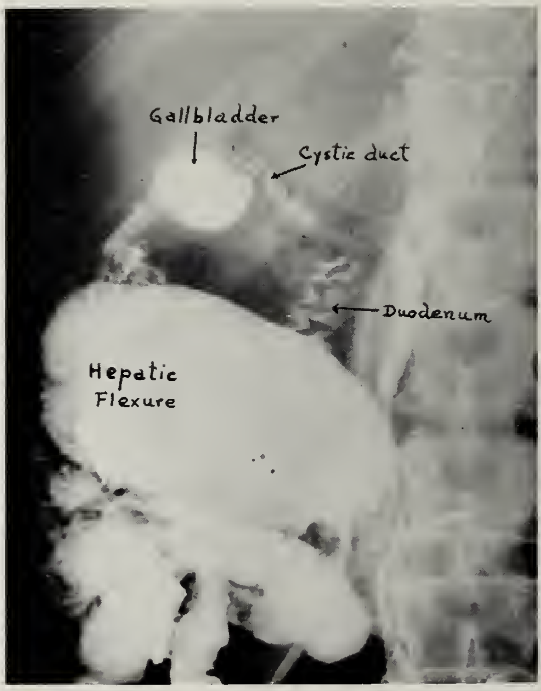


Fig. 2. Barium enema with retrograde passage of barium into biliary tree.

toscopic examination to 10 inches were negative. Abdominal cramping occurred every 10 to 15 minutes, lasted a minute or so and subsided simultaneously with the presence of a "gurgling sound that was felt rather than heard." Temperature, pulse and respirations were normal. Hospitalization was advised. A barium enema done December 16 showed a complete obstruction at the junction of the descending and sigmoid colon. No evidence of the underlying cause could be detected at that time. Gas was present in the colon and small bowel. Decompression was attempted by means of a Cantor tube and by colonic irrigations. These measures were ineffectual; gaseous and fluid distention increased, as evidenced by a flat plate of the abdomen 24 hours after the previous roentgenologic examination. Nausea and vomiting were also complained of in spite of the Cantor tube which was in the stomach and seemed to be working satisfactorily. A preoperative diagnosis of sigmoid obstruction was made, and transverse loop colostomy was decided upon and performed by one of us (A. F. C.) 30 hours after admission. At operation the transverse colon was found to be quite distended and edematous. Difficulty was experienced in exteriorizing a loop of the transverse colon. This was thought to be due to a short mesocolon. No exploration was attempted since only a small right upper transverse incision had been made. We felt that it was inadvisable to do much of an exploratory procedure under the above circumstances.

Convalescence was satisfactory. Three days after colostomy was established and the colonic distention and pressure relieved, a large gallstone was passed per rectum. The patient had much difficulty expelling the mass through the anal canal. He described the stone as measuring 5 or 6 cm. in diameter and being extremely hard. Unfortunately, it was lost down the toilet.

Irritation of the skin about the colostomy was noticed the day before the diagnosis was established by a second barium enema (figure 2) which was done December 22. After a few days the skin irritation developed into the typical dermatitis seen about an external biliary or pancreatic fistula. Green, unchanged bile was noticed in the colostomy dressing the day after the second barium enema. The latter disclosed no evidence of disease in the colon distal to the colostomy. The hepatic flexure was the area involved in the cholecystocolic fistula. A flat plate taken on January 5, 1950 demonstrated a beautiful air hepatogram, and the absence of barium in the biliary tree (figure 1).

On January 6, 1950, 3 weeks after colostomy, a laparotomy was done through a right upper rectus incision. The colostomy was freed, and when the peritoneal cavity was opened a chronically inflamed mass involving the liver in the region of the gallbladder and the hepatic flexure of the colon was seen (figure 3). Many adhesions between the omentum, colon and liver were freed and the gallbladder finally exposed. The latter measured not more than 4 by 3 by 2 cm.; it was chronically contracted and scarred and contained an easily palpable gallstone later found to measure 1 cm. in diameter. No other stones were felt. The cystic and common ducts were exposed and found to be normal in size and to contain no stones on palpation. A cholecystectomy from below upwards and resection of the cholecystocolic mass and of the proximal transverse colon previously utilized for making the colostomy were done by one of us (A. F. C.). The ascending and transverse colon were approximated by end-to-end anastomosis. The postoperative course was uneventful; the highest temperature noted was 100.2°F. on the second postoperative day.

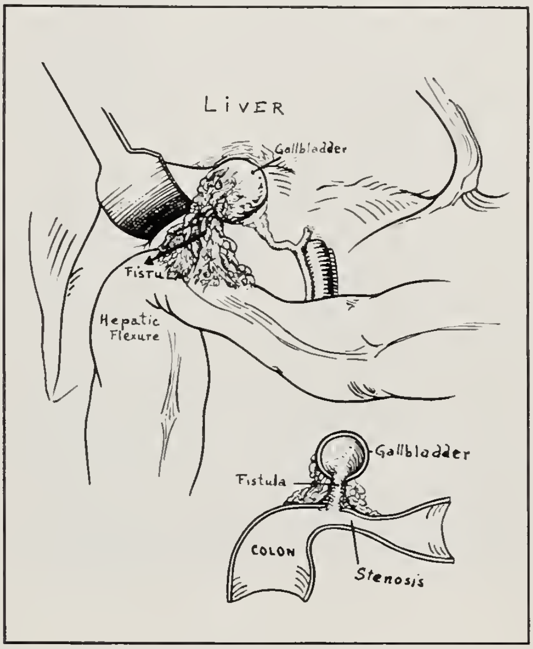


FIG. 3. Findings at operation.

The preoperative preparation included penicillin by injection, sulfathaladine by mouth and intramuscular streptomycin. Colonic irrigations were used daily. A high hematocrit (49 to 52 per cent) and high blood viscosity (8 to 9; normal value, 4 to 5) were obtained daily preoperatively by Dr. John Shadid, who followed this patient with regard to the possibility of thrombo-embolic phenomena. These studies led us to avoid transfusions either during or after surgery. Parenteral fluids to maintain an adequate urinary output were administered postoperatively. The hematocrit varied between 39 on the third and 47 on the eighth postoperative days. The blood viscosity remained low and varied between 3.4 on the second and 5.6 on the seventh postoperative day. These readings were made daily for 12 days following the second operation.

The pathologic report was that of a benign cholecystocolic fistula measuring 1.5 cm. in diameter, a chronically contracted gallbladder with cholelithiasis, chronic colitis about the fistula, and narrowing of the hepatic flexure by the surrounding inflammatory changes.

Discussion

This case is reported not only because of the infrequent occurrence of this condition, but also because of the serious complications of intestinal obstruction caused by gallstones. Wangensteen[4] in his excellent book on intestinal obstruction describes this entity very well and gives an excellent review of the literature.

The lack of symptoms or signs suggesting biliary tree disease in the recent or past history or in the physical examination made prior to colostomy, the presence of an obstructing lesion of the sigmoid by barium enema, and the distention encountered were responsible for the erroneous diagnosis made in this case prior to the second X-ray visualization of the large bowel. The gallstone was not opaque.

Decompression of the colon by proximal colostomy relieved the spasm and any inflammatory reaction of the sigmoid about the large gallstone, allowing it to pass on through to be expelled per rectum several days after colostomy had been established. This spasm and inflammation about the stone must have been present to a marked degree to cause complete obstruction. Several colonic irrigations failed to dislodge the stone from its abnormal location.

Once decompression was accomplished, the diagnosis of the underlying lesion was evident when barium was inserted into the colostomy stoma. Almost at the same time normal bile was seen in the colostomy discharge, and the skin irritation about the stoma was noted.

Upon reviewing all the X-ray films made in this case, it was possible for the roentgenologist and us to notice that air in the biliary tree was present in all films taken. The amount of air was small in the first and second films prior to establishment of colostomy, and this was ignored in the original study. The diagnosis of an abnormal communication between the biliary tree and the gastrointestinal system should be suspected whenever air is encountered in the bile passages by roentgenography, and there is no recent history of biliary surgery.

It is remarkable how little discomfort referable to the gallbladder was suffered by this patient. The lack of any signs or symptoms of biliary infection during the obstructive phase is surprising. After sulfathaladine was begun, one may assume that the chances of infection would be decreased, but for at least 4 days this patient's only barrier against an ascending cholangitis was a steady stream of bile.

We were interested in this patient's elevated blood viscosity and hematocrit prior to surgery, and though this is not certain to cause a phlebothrombosis, we believe that the possibility of clotting would have been greater had this man received whole blood to reëstablish his "normal" blood status. As it was, he was kept in a state of rather mild anemia and low viscosity, allowing his own natural resources to bring these figures back to normal.

The mortality of cholecystocolic fistula found in the literature has varied between 50 and 60 per cent.[3] It is believed that if adequate preoperative treatment is carried out not only to correct any abnormal fluid or electrolyte balance, but also to prevent an ascending biliary infection, the mortality will be considerably reduced. At the present time with the great advances being made in anesthesia, antibiosis and chemotherapy, it is possible to do major operations of this sort with minimal risk to the patient at the time of surgery, and with a satisfying feeling that peritonitis, abscess formation and wound disruption will occur in only a low percentage of cases.

(*Continued on page 542*)

ALBERT FREEMAN AFRICANUS KING (1841-1914)

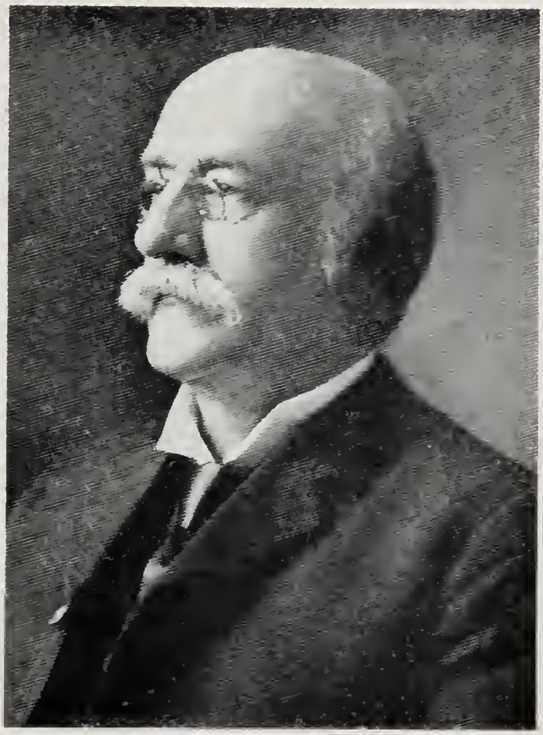
His Theory as to the Transmission of Malaria by Mosquitoes*

WORTH B. DANIELS, M.D.

Washington

IT IS well for us physicians to look backward occasionally and inform ourselves as to what manner of men and ideas created our present science and art. It is my intention tonight to tell you something about Albert Freeman Africanus King, who practiced obstetrics in Washington for many years and who clearly stated and documented (1882) the opinion that malaria was transmitted by the bite of mosquitoes.

Dr. King was born in 1841 in the hamlet of Blackthorn in Oxfordshire, England, the son of Dr. Edward K. and Louise Freeman King. His father was deeply interested in the betterment of the poor of England and sponsored and organized colonization in Africa. He perpetuated this interest in the naming of his son. The senior Dr. King later became interested in colonization in this country, and in 1851, when Albert Freeman Africanus was aged 10, he accompanied his parents to Virginia with a group of immigrants gathered together by his father. The family first settled in Alexandria (Dr. Edward King is buried there), later moving to a plantation near Warrenton. At age 20 (1861) Dr. King graduated in medicine from The National Medical School of Washington (now George Washington) and began practice in Haymarket, Virginia. Though not in the army of either contending force, he attended the Confederates wounded in action at the Battle of Bull Run. Later in the war he came to Washington and served as assistant surgeon at The Lincoln Hospital situated on the present site of Lincoln Park. There he attended ill and combat-wounded Union soldiers. Dr. King was seated in the orchestra in Ford's Theatre on the night of Lincoln's assassination. Immediately, after Booth had fired his shot he climbed into the mortally wounded President's box and administered first aid. He helped carry Lincoln across the street to the house where he died and there attended him with other physicians until his death.



ALBERT F. A. KING, M.D.

In 1865 Dr. King completed further medical education and was awarded the M.D. degree by the University of Pennsylvania. Following this he settled permanently in Washington, where he practiced for more than 50 years. He lived at 726 Thirteenth Street, Northwest. The house is no longer standing, but the lot is occupied by Ruby Foo's Chinese restaurant and an automobile parking lot. He later lived and eventually died in a pleasant house near Thomas Circle, 1315 Massachusetts Avenue, Northwest.

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* Read before the Clinico-Pathological Society of Washington, D. C., December 20, 1949.

Dr. King was quite active in The Medical Society of the District of Columbia. He was Recording Secretary, 1865–68; librarian, 1870–71; Vice President in 1877 and again in 1880, and President in 1883. He made the main address to the Society at the Walter Reed Memorial Meeting, December 31, 1902; read an original poem at a dinner given to the late Dr. J. Ford Thompson, March 7, 1907; and spoke at a smoker given by the Medical Society in honor of his own seventieth birthday on January 21, 1911. He was active in national medical circles and in 1886 became a fellow of the American Gynecological Society and in 1899 its Vice President.

For many years he was Professor of Obstetrics at the Columbian Medical College (now George Washington) and lectured to his students there regularly and even on the day of his sudden death. He was also Professor of Obstetrics at the University of Vermont, where he conducted an intensive spring course each year. He was Dean of the Medical Department of Columbian College from 1879 to 1894. He wrote widely, and his bibliography lists 78 entries. His best known work was his "A Manual of Obstetrics," first published by H. C. Lea and Son in 1882. This book went through numerous editions.

Dr. Sterling Ruffin, in appraising Dr. King and his book, said:

"He was not a practical or practicing obstetrician nor as far as I know did he claim to be, but he had a remarkably clear and accurate conception of the theory of obstetrics and especially of the mechanisms of obstetrics, and in my judgment wrote the best book I have read on obstetrics, considering the purpose for which it was written.

"Almost his first aim in life was to give beginners a sound start in the study of obstetrics, to teach them the physiology of pregnancy, the anatomy of the pelvis, and the mechanisms of childbearing. These things he did in a really masterful way and so simply that even the dullest intellect could scarcely fail to comprehend. The result was that his students were remarkably well and soundly grounded in elementary obstetrics."

Our respected elder, statesman and medical practitioner, Dr. E. Y. Davidson, remembers Dr. King vividly as his Professor of Obstetrics at Columbian Medical College. Dr. Davidson graduated in 1894. He says that Dr. King was a large-framed, extremely well dressed and impressive gentleman who spoke well and lectured beautifully. It was the consensus of the students in the medical school that he did not know too much about practical obstetrics but that he was a master at teaching the facts which he had compiled so clearly in his "A Manual of Obstetrics."

Dr. Davidson was president of the junior class in 1892 and was directed by his classmates to go to Dr. King and tell him that the class insisted that in the future they have teaching in practical obstetrics at Columbia Hospital. (All previous teaching had been purely didactic.) Dr. King said this could not be done, but Dr. Davidson, a third-year student, then informed Dr. King that unless this could be accomplished the students had decided to move in a body to Georgetown Medical School. The professor was then impressed and stated that he would take this under advisement. The following day he consented to institute a course in practical obstetrics with the students present and observing deliveries at Columbia Hospital. Thereafter he regularly addressed student Davidson as "Mr. President" whenever he spoke to him.

Dr. King's scientific interests were wide and by no means limited to obstetrics and the diseases of women. His most memorable contribution, which will be discussed at length, was unrelated to his specialty.

Dr. King died suddenly on December 13, 1914 at the age of 73 and is buried in Rock Creek

Cemetery. You will find in the *Washington Medical Annals*, Volume 14, year 1915, tributes to this great man by several of our older colleagues whom many of you know or remember. Among those who lauded him at this Memorial Meeting at the Medical Society were Dr. Henry D. Fry, Dr. Barton Cooke Hirst, Dr. L. O. Howard, Dr. Sterling Ruffin, Dr. D. K. Shute, Dr. A. R. Shands and Dr. E. Y. Davidson.

Posterity will remember Dr. King best for his paper, "The Prevention of Malarial Disease, illustrating, inter alia, The Conservative Function of Ague," read before the Philosophical Society of Washington, February 10, 1882, and later published in abstract in *The Popular Science Monthly* for September, 1883 under the title, "Insects and Disease—Mosquitoes and Malaria." You will remember that Laveran discovered and described the plasmodium in the blood of patients with malaria in 1881. It would appear from Dr. King's paper and the discussion of it that this discovery was not known to this group in February, 1882. It was not until 1897 that Ronald Ross completed his work on the life cycle of the parasite and proved that the mosquito was the vector. Dr. King's theory that malaria was transmitted by the mosquito was antedated by Josiah Nott (1848), who credits Sir Henry Holland with similar ideas at an earlier date. Neither of these men tried seriously to prove or document their theories. This was well done by King. In 1882, when King's paper was presented, the prevailing opinion was that the disease was due to marsh vapors and miasmas arising to infect man after sundown.

In his paper Professor King indicated that the insect transmission of disease was not a new idea, having been discussed by Linnaeus and others. The work of Manson, Bancroft, Lewis and Sonsoni had tended to show that *Filaria sanguinis-hominis* was transmitted by mosquitoes. Carlos Finlay (1881) stirred King's imagination by his hypothesis that the mosquito transmitted yellow fever. Dr. King felt that "viewed in the light of our modern 'germ theory' . . . the punctures of proboscidian insects like those of Pasteur's needles deserve consideration, as probably means by which bacteria and other germs may be inoculated into human bodies . . . and give rise to specific fevers." The transmission of malignant pustule by the bite of a fly and Pasteur's passage of chicken cholera by puncturing the integument of the experimental subject with the finest-pointed, infected needle indicated to Dr. King that "it scarcely seems possible to ignore any longer the punctures of mosquitoes . . . as possible sources of infection and contagion." He infers, too, that the mosquitoes' role in transmitting yellow fever (Finlay 1881) may indicate that the same is being done by "the flea . . . in filthy jails and ships infested with typhus."

Dr. King states, "I now propose to present a series of facts . . . with regard to 'malarial poison' and to show how they may be explicable by the supposition that the mosquito is the real source of disease, rather than the inhalation or cutaneous absorption of a marsh vapor."

In the paper under discussion King lists 19 known facts about the epidemiology of malaria. The majority of these had been published by Dr. John T. Metcalfe in 1862 and were conceded by everyone as true. In the subsequent paragraphs it will be shown how King proved that each of these facts about malaria was equally applicable to mosquitoes.

1. "Malaria affects, by preference, low and moist localities." Dr. King, "Conformably with it we find the mosquito does the same."

2. "Malaria is hardly ever developed at lower temperatures than 60° F." Dr. King, "A temperature of 60° F. is necessary for the development of the mosquito."

3. "The evolution or active agency of malaria is checked by a temperature of 32° F." Dr. King, "The mosquito is killed or paralyzed . . . by a temperature of 32° F."

4. "Malaria is most abundant . . . as we approach the equator and the sea coast." Dr. King found this true of mosquitoes.

5. "Malaria has an affinity for dense foliage,

which has the power of accumulating it when lying in the course of winds blowing from malarious localities."

6. "Forests or even woods have the power of obstructing or even preventing its transmission in these circumstances." Dr. King stated that both these facts are true of mosquitoes and that winds "bearing a colony of mosquitoes should be screened or sifted out of its insect burden by passing through foliage . . . is certainly more comprehensible than the conception of a malaria vapor being so screened by . . . its affinity for foliage."

7. "By atmospheric currents malaria is . . . transported . . . distances as far as 5 miles"; "so certainly is the mosquito."

8. "Malaria may be developed in previously healthy places by turning up soil and making excavation . . . ." King answers that such activities create pools as breeding places for mosquitoes.

9. "In certain countries malaria seems attracted and absorbed by bodies of water lying in the course of winds . . . from the miasmic source." Dr. King states that there is no absorption of the miasma by water but that when bodies of water are of large area the mosquitoes are unable to travel across them.

10. "In proportion as countries, previously malarious, are cleared up and thickly settled, periodic fevers disappear." Dr. King stated that in such areas "swamps and pools are drained so that the mosquito cannot . . . find a suitable place to deposit her eggs."

11. "Malaria keeps near the surface of the earth." Dr. King states that so does the mosquito, but that when movements of air currents carry the miasma up ravines for 1,000 feet so can the air carry mosquitoes.

12. "Malaria is most dangerous when the sun is down . . . ." Dr. King, " . . . the marsh vapor theory . . . is unsatisfactory. With regard to the mosquito . . . it is well known that . . . after sunset and at night it indulges its bloodsucking proclivities."

13. "The danger . . . is increased by exposed sleeping in night air." Dr. King, " . . . while awake the person exposed will move about or brush away the insect while he will submit to be bitten during sleep."

14. " . . . fire both indoors and . . . out affords comparative security against malaria." Dr. King, "Explanations on marsh vapors . . . are unsatisfactory." He says that fires attract and destroy mosquitoes, protecting persons in immediate areas.

15. "The air of cities in some way renders malaria poison innocuous; though the disease may be raging outside, it does not penetrate far into the interior." Dr. King, " . . . mosquitoes . . . will be arrested by walls and houses and attracted by lights . . . in the suburbs . . . so that many will be prevented from penetrating far into the interior."

16. "Malarial diseases are most prevalent towards the latter part of summer and in the autumn." Dr. King, " . . . mosquitoes are more numerous also during late summer and autumn."

17. "Malaria is arrested not only by trees, walls, etc., but also by canvas curtains, gauze veils and mosquito nets." Dr. King, "It is almost needless to add that, while these nets, curtains, etc., can hardly be conceived to intercept marsh air, they certainly can and do intercept mosquitoes."

18. "Malaria . . . affects infants much less frequently than adults." Dr. King, "Young infants . . . are . . . carefully housed and . . . their beds and cradles are protected with mosquito curtains . . . ."

19. "Of all human races, the white race is most susceptible to marsh fevers, the black least." Dr. King states that this has been attributed to acclimatization, but he thinks that the body of the black race is not as easily seen at night by mosquitoes and that they may have an odorous skin secretion offensive to the mosquito.

Dr. King states that "In opposition to the mosquital origin . . . numerous mosquito wounds may be inflicted without . . . malaria; but this . . . is not incompatible . . . . We do not yet know whether the poison be . . . salival or . . . a bacillus with which . . . the proboscis . . . may be loaded. . . . The scratch of the lancet will not produce vaccinia unless it is charged with vaccine matter; the puncture of Pasteur's needles would be harmless . . . did he not load them with infecting bacteria; so with dog bites and hydrophobia, etc."

Dr. King ends his brilliant treatise by saying, "If the mosquital origin of malarial fevers be correct—if protection from mosquital inoculation protects from ague—the means of prophylaxis from malarial disease will not be difficult. It comprises the following items:

1. Personal protection from all winged insects during evening and night by gauze curtains, windows, screens or clothing impenetrable to their proboscises. . . .
2. Domiciliary protection by screens of trees, walls, etc. . . . with fires, lamps or electric lamps to act as traps . . . , the use of smoke such as tobacco or pyrethrum, which may be offensive to the proboscidian intruders.
3. Municipal protection by destruction of or draining swamps and pools. . . . "

Little can be added today to Albert Freeman Africanus King's theory as to the transmission of malaria except that through the work of Laveran, Ross and others we know the animalcule carried by the proboscidian pest. His major recommendations as to control are now standard operating procedures.

Dr. King's paper was heard by 42 members of the Philosophical Society. Dr. J. S. Billings in discussion said, "Since ague does not invariably result from insect bites, the most that can be claimed is that the mosquitoes accomplish an accidental inoculation with malarial poison." It is said that one of the reasons Dr. King's contribution did not create more enthusiasm was because he had frequently written papers on various of his theories which were so bizarre as to be impossible.

King was not a man of thought and theory only but a most humorous speaker. At the dinner celebrating the 75th anniversary of the founding of The Medical Society of the District of Columbia he was an important speaker. *The Evening Star* of February 17, 1894 reported this occasion as follows:

Dr. King Inspired

"The speech of the evening was that delivered by Dr. A. F. King. His toast was: 'Medicine, 1819–1894.' From the five minutes allotted him he thought the committee evidently intended that he should present an accurate account of the history of medicine during the last seventy-five years. That was at the rate of fifteen years a minute.

"Medicine, like all sciences, has had its ages, its stages and its sages. Beginning with 1819, he thought, this age of medical practice might well be called the age of depletion. Dr. King then dropped into poetry, and did it so well that he won congratulations on all sides:

'In those days, you remember, we bled, and we bled,
And sometimes bled on till the patient was dead,
When most of us having the passion for gore
Thought it utterly useless to bleed any more.
If blood-letting failed to arrest inflammation
The doctor's next hope was profuse salivation.
This practice was based on the idea of humors
Producing all lesions from bad blood to tumors.
While humors like these in a man's body dwelling
Led to redness, together with pain, heat and swelling.
The physic was given, without any doubt,
For the purpose of getting the enemy out.
Hence the dosing began with a direful emetic,
To be followed in time by a smooth diuretic,
Combined with some smooth diaphoretic,
And somewhere with these at all times now and then
A potential powder of old "ten and ten."
So, to render this practice in one work complete,
The entire system was to deplete and deplete.'

" 'And yet,' Dr. King said, 'a change came over the spirit of medical practice. Instead of depletion, stimulants were resorted to, and instead of bleeding, the doctors insisted upon feeding. Others would put the patient to bed and hope. This was the expectant method.' With these remarks he said he had reached the year 1893, a period remarkable for the evolution of living elixirs and vitalized extracts. Here he fell into rhyme again:

'An extract of muscle for rheumatic pains,
A gray matter extract to nourish our brains.
An extract of teeth for a man that can't chaw,
A maxillary extract to cure lockjaw.
An extract of ocean to cure mal de mer,
A hirsutic extract for those without hair,
A duodenal extract to serve a good turn
In healing the ulcers that follow a burn.

'Now, if hearts broken hearts cure, and livers cure livers,
If plasmodial spleens cure a man of the shivers,
If fingers and toes cure up lame feet and hands,
And lymphatic extracts can cure diseased glands,
Let us grind up a body in one mammoth mixture,
Blood, bladder and liver and every texture,
And make from this compound cadaveric pills;
'Twould a sure panacea be for all of our ills.

'Of 1893 I need say nothing more,
But pass on at once to 1894.
We need not consult the books on our shelves
To learn that this epoch relates to ourselves.
So, whatever we are, and however we're rated,
Whatever we say must be modestly stated.
Now, we all know that we are the real Simon Pures,
We've got the true science and use the true cures.
We care not, but smile at the laughter of skeptics,
We know that we cure, for we use antiseptics.
Should a patient but snore while taking a dose,
With a gilded machine we spray out his nose.
Should another complain of his tonsils or larynx,
With a high-pressure engine we fizzle his pharynx.
Should a noise in the head rouse another one's fears,
We shoot some new germicide into his ears.

'And so with all natural alleys and lanes
Where the orgies of germs produce strictures and pains,
We no longer dally with powders and potions,
But charge on the germs with our carbolic lotions.
No matter how dire the disease, or how horrid,
It must yield to this or Hg.' "

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Memorial Meeting of The Medical Society of the District of Columbia, January 20, 1915, in Honor of the Late A. F. A. King. Wash. M Ann., 1915, **14.** 89

1150 Connecticut Avenue, N.W.

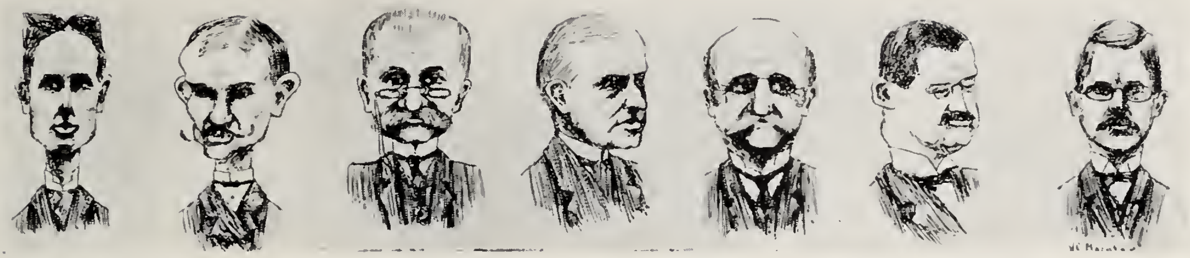
Discussion

Dr. William Earl Clark: Seeing Dr. King's picture thrown on the screen and hearing Dr. Daniels review his life made our old professor come alive again in my memory in a very real way.

Dr. King was a great character and a great teacher. He was considerably overweight, and having a prominent abdomen he used this abdomen in a very effective way to teach obstetrics. He would walk about like a woman about to be delivered and could put on such a good show accompanied by grunts that we almost expected him to have a baby right before our eyes.

We, his students, had heard that he did not have much obstetrical practice, yet he talked as though he had delivered thousands of women. When lecturing on vomiting of pregnancy he dramatized it so that we could see every move he made; first, we saw him going into the kitchen to prepare a poached egg on toast; then we saw him take it upstairs and gently enter the room where the patient was sleeping. He would waken her and have her eat this small, freshly prepared meal, then would turn off the light, close the door, and let her go back to sleep again.

One night when he was talking about pelvic measurements and difficulties he told us if, upon entering a



Dr. King (third from right) and some of his contemporaries.

Left to right: Sterling Ruffin, M.D.; Aurelius Rives Shands, M.D.; Joseph Ford Thompson, M.D.; William Waring Johnston, M.D.; Dr. King; Henry L. E. Johnson, M.D.; Charles Williamson Richardson, M.D.

Drawings by Dr. H. C. Macatee

house to deliver a woman, we hung our hat on the hat rack, and if we saw another man's hat there, and it was presumably the father's hat, we should try it on. If it came down over our ears we were probably going to have trouble delivering a baby with a big head.

In closing I want to express my gratitude to Dr. Daniels for his delightful account of Dr. King's life because, as I said before, he made a great teacher live again in our memories.

Dr. Henry C. Macatee: I had thought that perhaps I would be the only one present who had sat under Dr. King's tutelage in obstetrics or, as he preferred to call it, midwifery. I had overlooked Dr. Earl Clark, who was one of his pupils also, and Dr. Tom Lee, who must have known him well.

While listening to Dr. King's lectures, I was not always properly diligent in taking notes; for I have here a caricature of him which I drew on one of the pages of my notebook together with those of other professors.

Dr. Daniels has spoken of Dr. King's well-known "Manual of Obstetrics" and of his very early paper upon the transmission of malaria by the mosquito. I remember two other interesting theories he evolved, these also based entirely upon closely reasoned deductions which suggest his lively scientific imagination and his familiarity with medical literature. One was a paper entitled "Measles and Mice." One of the theories was based upon an incident in the mid-nineteenth century when the inhabitants of the Faroe Islands were afflicted by a very devastating epidemic of measles at the same time that the Islands suffered an invasion of hordes of mice. I do not remember how he sustained his thesis of causal relationship between mice and measles, but I do remember his emphasis upon the mouse-like odor of measles and his theory that the odor might be an emanation of some infectious agent common in mice and under proper circumstances transmissible to man.

The second theory contained the suggestion that the increased incidence of cancer might be due to proliferation of cells fertilized by human spermatozoa. I have my doubts that Dr. King ever personally studied sectioned and stained cancer tissues under the microscope, but his reasoning must have been based upon his reading of descriptions of embryonic cells, with lively mitosis of the nuclei, and other manifestations of active proliferation. At any rate, he reasoned that the increased incidence of cancer might be due to the almost universal installation of bathtubs, furnished with abundance of hot water and soap. What more likely than that the tub could be contaminated with spermatozoa, and that the next comer could be the victim of sperm clinging to the sides of the tub, ready to be revitalized by warm, alkaline water and to swim away to seek union with some vulnerable tissue cell, whether of breast, cervix, or what not.

Dr. Clark spoke of Dr. King's clear and vivid descriptions of the mechanism of labor. I remember how this man of great personal dignity would, without a trace of self-consciousness, come before the lecture desk and, with hands upon his ample abdomen, demonstrate the method of rectifying a faulty foetal position by external version. And how he would teach the audible recognition of the second and third stages of labor by mimicking the falsetto moans of the second stage and then the purposeful grunts of the third, the while half squatting to add to the grunts a bearing-down fixation of the diaphragm and contraction of the abdomen.

The teaching of medicine has come a long way since then, but, according to the lights, "there were giants in those days."

Dr. William H. Hough: I was present at the meeting referred to by Dr. Macatee, when Dr. King presented his theory on the cause of cancer. He discussed, among other things, the viability and widespread dis-

(*Continued on page 542*)

President's Page

SPLENDID PROGRAMS PROMISED

After attending the early sessions of the Program Committee, I can assure you an interesting series of meetings this fall and throughout the year. Dr. John A. Reisinger and the members of his committee have been working diligently and well. One of the first, if not the very first, meetings will be devoted to the immediate care of common, everyday emergency injuries as seen in daily practice. Polio, with all its ramifications, will be authoritatively discussed at a subsequent meeting; and a clinico-pathological conference will be held, under the direction of Dr. Harold Jeghers, at another. Meetings this year will again be held twice a month, beginning October 18, on alternate Wednesday evenings. They will start at 8:30 p.m., rather than 8:15 p.m., to allow a little more time for the men with evening office hours to attend. Plan to come to these meetings regularly. You will find them instructive as well as enjoyable. We hope to have a bit of social fellowship following one of the two meetings each month. When the official program is announced, mark off the dates on your calendar.

And speaking of scientific programs, the one for the ANNUAL SCIENTIFIC ASSEMBLY, October 2, 3 and 4, is outstanding. Dr. Karl C. Corley, General Chairman, his various committees, and Dr. Thomas McP. Brown, Chairman of his Program Committee, in particular, are to be congratulated on their fine work this year. An ever-increasing attendance marks the growth and success of these meetings. The ANNUAL SCIENTIFIC ASSEMBLY is our own unique effort to provide an outstanding program of postgraduate lectures, demonstrations, etc., attractive not only to our own membership but to all physicians within a wide radius. Mark off the dates, October 2, 3 and 4, and consult the final program announcement for specific hours of lectures, demonstrations, and television.

Wm. M. Ballinger

21st Annual Scientific Assembly

OF THE MEDICAL SOCIETY OF
THE DISTRICT OF COLUMBIA

OCTOBER 2 • 3 • 4 • 1950

HOTEL STATLER

Medicine at Mid-century

At the halfway point of the 20th Century it would seem fitting to pause momentarily for a backward glance before entering upon the next 50 years with their many uncertainties. We are, of course, conscious of the extraordinary progress of medicine, but we also realize that great as have been these advances we still lack perspective to appraise them soundly. For example, the emergence of the sulfonamides and the antibiotics is still too recent for us to appreciate what a tremendous milestone we passed when they became available.

The 21st Annual Scientific Assembly will fittingly attempt to look both ways. Reviews of advances in many fields will be interspersed with examples of current research.

The three-day program will bring many prominent physicians from various parts of the country as well as a considerable number of investigators from Washington before Assembly audiences. There will be, as before, the Scientific, Public Health and Technical Exhibits. These will include contributions from many institutions which have done so much to justify the statement that Washington is the medical capital of our country. Colored television programs of surgical and medical procedures in progress at one of the local hospitals will be shown daily.

In accordance with tradition the Medical Society will be host to its members at luncheon on the opening day, October 2. On the two succeeding days the George Washington University Medical Society and the Georgetown University Medical Alumni Association will hold their luncheons.

Great emphasis will be placed on voluntary medical prepayment plans in the Special Exhibit and at the Public Meeting, both events being sponsored by the Blue Cross-Blue Shield Commissions. It hardly need be said that these will be timely in view of the events of the past few years.

The Assembly will close with a dinner following a cocktail hour. An unusual feature of this event will be the appearance of an outstanding radio personality. Part of the evening's program will be broadcast nationally.

The various chairmen and their committee members have earned thanks for a job well done and for work still in progress. It rests now with the Society members to complete the success of the Assembly by their attendance.

K C Corley

General Chairman
Committee on Arrangements

21st Annual Scientific Assembly

SCIENTIFIC PROGRAM

All Sessions in the Presidential Ballroom, Hotel Statler

MONDAY, OCTOBER 2—MORNING SESSION

9:30 Recent Advances in the Surgical Management of Peripheral Vascular Disease

Géza deTakats, M.D.
Associate Professor of Surgery, University of Illinois

10:00 The Medical Management of Peripheral Vascular Disease with Various Autonomic Blocking Agents

Andrew G. Prandoni, M.D.
Associate in Medicine, George Washington University School of Medicine

10:25 Recess

10:30 ACTH and Cortisone: The Present Status of Their Role in Clinical Medicine

Louis Soffer, M.D.
Assistant Clinical Professor of Medicine, Columbia University School of Medicine

Dr. deTakats

Dr. White

11:00 Toxemias of Pregnancy

Andrew A. Marchetti, M.D.
Professor of Obstetrics and Gynecology, Georgetown University School of Medicine; Chief of Obstetrics and Gynecology, Georgetown University Hospital.

11:30 Recess for Luncheon

MONDAY, OCTOBER —AFTERNOON SESSION

SYMPOSIUM ON CERTAIN ASPECTS OF DIABETES

2:00 Diabetes in Pregnancy

Pricilla White, M.D., Sc.D.

Instructor in Pediatrics, Tufts College Medical School

2:25 Diabetes in Childhood
Robert Jackson, M.D.
Associate Professor of Pediatrics, University of Iowa Medical School

2:50 Recess

3:00 Diabetes in Surgery
Frank N. Allan, M.D.
Executive Director of Medical Department, Lahey Clinic

3:30 Question and Answer Period

TUESDAY, OCTOBER 3—MORNING SESSION

Dr. Rhoads

9:30 Recent Advances in the Chemotherapy of Neoplastic Diseases
C. P. Rhoads, M.D.
Professor of Pathology, Cornell University Medical College; Director, Memorial Center for Cancer and Allied Diseases and Sloan-Kettering Institute for Cancer Research

10:00 The Combined Action of Various Antibacterial Agents in the Management of Infectious Diseases
Monroe J. Romansky, M.D.
Associate Professor of Medicine, George Washington University School of Medicine

10:25 Recess

10:30 Present Status of BCG Vaccine for the Prevention of Tuberculosis
J. D. Aronson, M.D.
Professor of Bacteriology, Henry Phipps Institute, University of Pennsylvania

11:00 Streptomycin and PAS in the Treatment of Tuberculosis
Sol Katz, M.D.
Chief of Tuberculosis Division, Gallinger Municipal Hospital

11:30 Recess for Luncheon

TUESDAY, OCTOBER 3— AFTERNOON SESSION

2:00 Status of Cerebral Physiology and Metabolism in Diseases of the Central Nervous System
Seymour S. Kety, M.D.
Professor of Clinical Physiology, Graduate School of Medicine, University of Pennsylvania

PANEL ON EPILEPSY

2:25 Etiological Concepts of Epilepsy
Irvine McQuarrie, M.D.
Professor of Pediatrics, University of Minnesota

2:50 Recess

3:00 Medical Management of Epilepsy
Francis M. Forster, M.D.
Professor of Neurology, Georgetown University School of Medicine; Director of the Department of Neurology, Georgetown University Hospital

3:25 Surgical Management of Epilepsy
Keasley Welch, M.D.
Montreal Neurological Institute, McGill University School of Medicine

WEDNESDAY, OCTOBER 4—MORNING SESSION

9:30 Biosynthesis and Pharmacology of Radioactive Digitalis and Other Medicinally Important Drugs

E. M. K. Geiling, Phar.D., M.D.

Frank P. Hixon Distinguished Service Professor and Chairman of the Department of Pharmacology, University of Chicago

10:00 Veratrum Viride in the Treatment of Severe Diastolic Hypertension

Edward Freis, M.D.

Adjunct Professor of Clinical Medicine, Georgetown University School of Medicine

10:30 Recess

10:35 The Medical Management of Pulmonary Embolism

John M. Evans, M.D.

Assistant Clinical Professor of Medicine, George Washington University School of Medicine

Dr. Geiling

11:00 Diagnosis and Surgical Management of Pulmonary A-V Fistulae

Brian Blades, M.D.

Professor of Surgery, George Washington University School of Medicine; Chief of Surgery, George Washington University Hospital

11:30 Recess for Luncheon

WEDNESDAY, OCTOBER 4—AFTERNOON SESSION

Dr. Sodeman

2:00 Recent Advances in the Diagnosis and Treatment of Amebiasis

William A. Sodeman, M.D.

The William Henderson Professor of Tropical and Semitropical Diseases and Hygiene, Tulane University of Louisiana School of Medicine

2:25 The Medical Management of Liver Disease

Hyman J. Zimmerman, M.D.

Clinical Instructor in Medicine, George Washington University School of Medicine

2:50 Recess

3:00 Practical Aspects of the Management of Thyroid Disease

Laurence H. Kyle, M.D.

Assistant Professor of Medicine, Georgetown University School of Medicine

3:25 Current Concepts of the Etiology and Management of Asthma

John J. Curry, M.D.

Associate Professor of Medicine, Georgetown University School of Medicine

The Scientific Exhibit

The Scientific Exhibit will be on display, as usual, in the South American Room of the Hotel Statler. Below is a list of the exhibits and the sponsors:

Titles	*Exhibitors*
A Study in Gross Osteopathology	William J. Tobin, M.D., and D. J. O'Regan, M.D., Georgetown University School of Medicine, and T. D. Stewart, M.D., National Museum, Smithsonian Institution
ACTH and Cortisone in Rheumatic Fever and Related Conditions	Fernando R. Leyva, M.D., Mark P. Schultz, M.D., Bernard J. Walsh, M.D., and Eugene C. Rice, M.D., Children's Hospital
Bronchiectasis Secondary to Tuberculosis	Daniel L. Finucane, M.D., Glenn Dale Sanatorium
Cephalopelvimetry	Fred O. Coe, M.D., Groover, Christie and Merritt
Congenital hernias	Philip A. Caulfield, M.D., Gerald McAteer, M.D., and Robert Pender, M.D., Children's Hospital
Department of Surgery—Doctors Hospital	Charles S. White, M.D., White, Wilson and White
Diseases of the Ear, Nose and Throat	Irvin Hantman, M.D., Department of Otolaryngology, Georgetown University School of Medicine, and Episcopal Eye, Ear and Throat Hospital
Extraperitoneal Cesarean Section	Thomas M. Leonard, M.D., and William T. Lady, M.D., George Washington University School of Medicine, and Major Humbert Riva, M.C., U. S. A., Walter Reed General Hospital
Flat Feet in Young Children	Maurice Herzmark, M.D.
Functions of a Blood Grouping Laboratory	John B. Ross, M.D., and Oscar B. Hunter, Jr., M.D., Blood Grouping Laboratory, Washington, D. C.
Intra-arterial Cancer Chemotherapy	Calvin T. Klopp, M.D., Department of Surgery, George Washington University School of Medicine
Lipoid Pneumonia	Aubrey O. Hampton, M.D., Edward B. McCabe, M.D., Edgar W. Davis, M.D., and Theodore Winship, M.D., Garfield Memorial Hospital
Neonatal Morbidity and Mortality at the Children's Hospital, Washington, D.C.	John P. McGovern, M.D., and William L. Sager, M.D., Children's Hospital
Original Tocographic Studies upon the Parturient Uterus	Samuel M. Dodek, M.D., George Washington University School of Medicine
Pain due to Malplaced Cervical Discs and Its Treatment	Arthur A. Morris, M.D., Georgetown University School of Medicine
Parenteral Carbohydrate Therapy-use of Invert Sugar	Jacob J. Weinstein, M.D., George Washington School of Medicine and Gallinger Municipal Hospital
Plastic Surgical Care of the Chronic Ulcer	William C. Meloy, M.D., and Gordon S. Letterman, M.D.
Surgery of Gastric Lesions	William W. Chase, M.D., and William H. Ferguson, M.D.
Tantalum Mesh in Repair of Hernias	Edward A. Cafritz, M.D.
The Surgical Anatomy of the Peritoneal Fossae	Othmar Solnitzky, M.D., and Philip Burka, M.D., Department of Anatomy, Georgetown University School of Medicine
Transorbital Lobotomy for the Relief of Intractable Pain	Walter Freeman, M.D., and Jonathan M. Williams, M.D., George Washington University School of Medicine
Trinder Tampon for the Control of Intractable Nasal Hemorrhage	John H. Trinder, M.D., Georgetown University School of Medicine
Tumors of the Thyroid Gland	William L. Amoroso, Jr., M.D., and Robert J. Coffey, M.D., Departments of Pathology and Surgery, Georgetown University School of Medicine
Urogenital Anomalies and Pediatric Mortality	Joseph M. LoPresti, M.D., and Charles L. Waite, M.D., Children's Hospital

Public Health Exhibit

The Public Health Exhibit is now a permanent feature of the Annual Scientific Assembly. The Exhibit will be shown in the Federal Room, adjacent to the South American Room, which will house the Scientific Exhibit. It will be open to the general public. Visiting hours will be from 9:30 a.m. to 5 p.m.

Following is the list of exhibits and their sponsors:

Titles	*Exhibitors*
Antabuse Treatment for Alcoholics	Washington Committee for Education on Alcoholism
Blood Saves Lives	District of Columbia Chapter, American Red Cross
Cancer of the Lung	District of Columbia Division, American Cancer Society
Cardiac Rehabilitation	Washington Heart Association
Children's Eye Accidents	District of Columbia Society for the Prevention of Blindness
Dangers of Self-diagnosis and Self-medication	American Medical Association
Diabetes Detection	Diabetes Association of the District of Columbia, Inc.
50 Years of Tuberculosis Control in the Nation's Capital	District of Columbia Tuberculosis Association
Food and Drug Administration Protects the Public Health	Food and Drug Administration, Federal Security Agency
Health Security for the Insecure	Hospital Service Agency of the National Capital Area
Human Nutrition and Home Economics	U. S. Department of Agriculture
Medical Bureau	Medical Bureau
New Frontiers for Handicapped Children	District of Columbia Society for Crippled Children, Inc.
Preventing Mental Illness—Challenge to Public Health Agencies	National Institute of Mental Health, Federal Security Agency
Prevention of Rheumatic Fever	Armed Forces Institute of Pathology
Scholarship and Fellowship Educational Program of the National Foundation for Infantile Paralysis	National Foundation for Infantile Paralysis, Inc.
Services of the District of Columbia Health Department	District of Columbia Health Department
Vocational Rehabilitation of Amputees	District of Columbia Rehabilitation Service, Federal Security Agency
Washington Clinical Center	National Institutes of Health, Federal Security Agency
You CAN Conquer Hearing Loss	Washington Hearing Society and American Hearing Society

Special Exhibit

The Blue Cross—Blue Shield exhibit traces the growth, development and progress of these voluntary, nonprofit, prepaid hospital and medical-surgical care Plans in the United States and Canada. By means of a series of graphic and visual presentations, the enrollment growth, benefits provided and financial development of these Plans are traced. Included in the current data on Plan operations are the following statistics:

In 1949 the 90 Blue Cross Plans and 79 Blue Shield Plans paid to hospitals and doctors $422,070,000 for the care of 6,396,589 Blue Cross and Blue Shield patients.

There are 38,000,000 Blue Cross members and 16,000,000 Blue Shield members in the United States and Canada.

165,000 persons were added to Bule Cross rolls *each week* in 1949.

140,000 persons were added to Blue Shield rolls *each week* in 1949.

Informative literature, including reprints from national magazines, statistical data on Blue Cross and Blue Shield, and educational material will be distributed to visitors at the booth.

Color Television

An innovation at the Society's 21st Annual Scientific Assembly this year will be the new medical teaching aid, color television. With the coöperation of the medical schools of Georgetown University and George Washington University and the staff of the Gallinger Municipal Hospital, the Society will present surgical and medical programs each day of the meeting, October 2, 3 and 4. The presentation is sponsored by Smith, Kline & French Laboratories in the interests of advancing medical teaching technics.

The "colorcasts" will originate in the Gallinger Municipal Hospital, and will be transmitted by closed circuit to the Hotel Statler, where, in six rooms on the Mezzanine, special color TV receivers will be installed. Surgery will be transmitted in the mornings from 10 to 12; medical clinics, featuring case presentations of patients, will be transmitted in the afternoons from 2 to 4.

This marks the first time the Medical Society of the District of Columbia has had color TV on its program. The presentation is the 12th in Smith, Kline & French's Nation-wide series, which has included the transmission of 125 surgical operations and 130 medical clinics, in 10 cities, and has attracted more than 100,000 visits at the medical meetings.

The color TV signals are transmitted by directional radio link. The signals are beamed from the roof of the hospital to the roof of the hotel, by microwave, and cannot be picked up on standard television sets.

The Technical Exhibit

The Technical Exhibit will be on display in the Congressional Room. A list of the exhibitors follows:

Abbott Laboratories	(Booth 4)
Aloe, A. S., Company	(Booth 9)
Ayerst, McKenna & Harrison, Ltd.	(Booth 1)
Beuchler's	(Booth 28)
Bilhuber-Knoll Corporation	(Booth 14)
Boomhower, D. W., Company	(Booth 31)
Borden Company	(Booth 7)
Burroughs, Wellcome & Co., Inc.	(Booth 38)
Camel Cigarettes	(Booth 24)
Ciba Pharmaceutical Products, Inc.	(Booth 17)
Davies, Rose & Company, Ltd.	(Booth 33)
Doak Company, Inc.	(Booth 11)
Doho Chemical Corporation	(Booth 22)
Fleet, C. B., Company, Inc.	(Booth 25)
Gibson Company	(Booth 3)
Haskell, Charles C., & Company	(Booth 35)
Kloman Instrument Company, Inc.	(Booth 39)
Lederle Laboratories	(Booth 5)
Liebel-Flarsheim Company	(Booth 18)
Lilly, Eli, & Company	(Booth 30)
Maxwell & Tennyson	(Booth 34)
Mead Johnson & Company	(Booth 29)
Merrill, William S., Company	(Booth 6)
National Drug Company	(Booth 2)
Parke, Davis & Company	(Booth 36)
Peoples Drug Stores, Inc.	(Booth 37)
Phillip Morris & Company, Ltd., Inc.	(Booth 32)
Sanborn Company	(Booth 26)
Sandoz Pharmaceuticals	(Booth 16)
Saunders, W. B., Company	(Booth 23)
Schering Corporation	(Booth 40)
Searle, G. D., & Company	(Booth 20)
Sharpe & Dohme, Inc.	(Booth 12)
Smith, Kline & French Laboratories	(Booth 27)
Squibb, E. R., & Sons	(Booth 15)
U. S. Vitamin Corporation	(Booth 13)
Walker Vitamin Products, Inc.	(Booth 21)
White Laboratories, Inc.	(Booth 19)
Williams & Wilkins Company	(Booth 8)
Winthrop-Stearns, Inc.	(Booth 10)

Assembly Calendar

(All meetings at the Hotel Statler except where otherwise noted)

MONDAY, OCTOBER 2, 1950

8:30 A.M.: Registration
9:30 A.M.–11:30 A.M.: Scientific Program*
10:00 A.M.–12:00 M.: Color Television (Surgical)†
12:15 P.M.–1:30 P.M.: Medical Society Luncheon, Presidential Ballroom

Speaker: Eric Johnston, President, Motion Picture Association of America, Inc.

2:00 P.M.–4:00 P.M.: Color Television (Medical)
2:00 P.M.–4:30 P.M.: Scientific Program
7:00 P.M. (6:30 P.M. Cocktails): Women's Medical Society Dinner, Mayflower Hotel

Speaker: Priscilla White, M.D., Instructor in Pediatrics, Tufts College Medical School

Subject: "New Insulin"

TUESDAY, OCTOBER 3, 1950

9:30 A.M.–11:30 A.M.: Scientific Program
10:00 A.M.–12:00 M.: Color Television (Surgical)
12:15 P.M.–1:30 P.M.: George Washington Medical Society Luncheon, Presidential Ballroom

Speaker: Austin Smith, M.D., Editor, *Journal of the American Medical Association*

2:00 P.M.–4:00 P.M.: Color Television (Medical)
2:00 P.M.–4:30 P.M.: Scientific Program
8:15 P.M.: Public Meeting, Presidential Ballroom, sponsored by the Blue Cross—Blue Shield Commissions, Chicago. Dr. Richard Gerstell will speak on "You Can Survive an Atomic Attack."

WEDNESDAY, OCTOBER 4, 1950

9:30 A.M.–11:30 A.M.: Scientific Program
10:00 A.M.–12:00 M.: Color Televison (Surgical)
12:15 P.M.–1:30 P.M.: Georgetown University Medical Alumni Luncheon, Presidential Ballroom

Speaker: Major General Lewis B. Hershey, U.S.A., Director of Selective Service

2:00 P.M.–4:00 P.M.: Color Television (Medical)
2:00 P.M.-4:30 P.M.: Scientific Program
8:00 P.M. (7:00 P.M. Cocktails): Annual Dinner, Presidential Ballroom

Special Features: Certificates for Meritorious Service to Medicine will be presented to Jean Hersholt, Motion Picture and Radio Star, for his impersonation of "Dr. Christian." Ceremony will be broadcast over a Nation-wide hook-up. Certificates for Meritorious Service to Medicine will also be presented to Harry Hyland Kerr, M.D., Past President of the Medical Society, Frederick Coleman Fishback, M.D. and Arch Lockhart Riddick, M.D.

Dancing following the program until 1 A.M.

*Scientific Program will be presented in Presidential Ballroom throughout meeting.

† All Color Television programs will be shown in Pan American, Potomac Capital, Town, Council and District Rooms.

Registration

Arrangements have been made to register members of the Medical Society prior to the opening of the Assembly at the Society's Executive Offices on Friday, September 29, between 9:00 a.m. and 5:00 p.m., and on Saturday, September 30, between 9:00 a.m. and 12:00 noon.

The Registration Section at the Hotel Statler will be open at 8:30 a.m. on Monday, October 2. Visiting physicians, medical officers of the various branches of Government service, and Society members not previously registered may register and secure their badges at the Registration Section. No one will be admitted to the scientific sessions or exhibits without a badge. Invitations have also been extended to residents, interns, dentists, pharmacists, medical students, and others to register for the Assembly at the Hotel.

There will be a registration fee of $3.00 for visiting physicians and non-members of the Society. Medical officers of the Army, Navy, Public Health Service, and physicians employed by the Veterans Administration and other Government agencies will be admitted without paying a registration fee.

Members planning to attend the Medical Society's luncheon on the opening day of the Assembly, Monday, October 2, **must register and secure their tickets before 12:00 noon on Saturday, September 30.** Each Active member is entitled to one ticket without charge so long as they last. Associate members and non-members of the Society may purchase luncheon tickets at a cost of $3.50 each.

Tickets for the luncheons given by the George Washington University Medical Society and the Georgetown University Medical Alumni Association may be obtained at the Registration Section.

Committee on Arrangements

1950 ANNUAL SCIENTIFIC ASSEMBLY

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General Chairman

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RADIO, TELEVISION & MOTION PICTURES
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WOMEN'S ACTIVITIES
Helen Gladys Kain

The Cancer Bulletin

Published monthly by the District of Columbia Division of the American Cancer Society with the coöperation of the Cancer Control Committee of the Medical Society of the District of Columbia.

RECENT ADVANCES IN CANCER

VOLUME III September, 1950 NUMBER 3

THE RELATIONSHIP OF CARCINOMA IN SITU TO INVASIVE CARCINOMA OF THE CERVIX

OSCAR B. HUNTER, JR., M.D.

Instructor in Clinical Medicine, Georgetown University School of Medicine

RICHARD H. FISCHER, M.D.

Consultant in Obstetrics and Gynecology, Hunter Laboratories, Washington

In discussing the question of the relationship of carcinoma in situ to invasive carcinoma of the uterine cervix one is reminded that a large majority of pathologists recognize the term and consider the lesion to be actually malignant tissue or its precursor. Authorities, such as Broders[1] in 1932, Whitmore,[2] and others have called this lesion carcinoma in situ, "preinvasive carcinoma," and similar terms for many years. Nevertheless, at this stage there has been presented in the literature no completely satisfactory evidence to prove beyond any question of doubt that carcinoma in situ is clearly and definitely the precursor of invasive carcinoma.

The proof is not an easy one, primarily because of the fact that the carcinoma in situ in the cervix may exist for years prior to the development of an invasive cancer. There must be considerable question placed upon cases reported as carcinoma in situ which have progressed to invasive carcinoma over a period of time when the only material available has been from biopsies. The only adequate way to ascertain whether or not an invasive malignant lesion exists in the cervix is by a study of serial sections of the cervix. This, by its very nature, destroys the lesion for future study.

It is our opinion that the proof that carcinoma in situ is actually the precursor of invasive carcinoma may be obtained in three ways. The first is that of following a number of cases with many biopsy specimens from the cervix, showing pure carcinoma in situ, and to discover that this ultimately develops into an invasive carcinoma. A few cases will not suffice to prove this to be true, since serial sections of the entire cervix are necessary before an absolute statement can be made that the carcinoma in situ progressed to invasive carcinoma. This evidence can be used only as supportive evidence, not as conclusive evidence. The second method is by use of a statistical correlation of data, relative to the age, incidence, and population groups into which the two lesions fall. And the third is by the study of serial sections of all cervices in which carcinoma in situ is found by biopsy.

In discussing the statistical features of the two entities the literature tends to bring out that the average age of a patient with carcinoma in situ is between 35 and 40 years.[3] The age incidence of invasive carcinoma of the cervix is between 45 and 50 years. Thus there is a spread of approximately 10 years between the two conditions. This fits into the figures given for those who have described carcinoma in situ developing into invasive carcinoma. This evidence is helpful and certainly supportive but, again, there is no absolute proof. Of further statistical interest is that found in cancer detection clinics. In surveying many large groups of population various authors have arrived at reasonably accurate figures for the incidence of carcinoma in situ and invasive carcinoma. Nieburgs and Pund[4] in their group of 10,000 cases reported carcinoma in situ in 1 per cent and invasive carcinoma in 1.5 per cent. Others report figures that vary slightly. In our own series of 1,500 cases we had 0.8 per cent with positive smears, of which 6 were followed up. These were carcinoma in situ. Meigs and others have published similar reports which would tend to indicate that the relationship of carcinoma in situ to invasive carcinoma by statistical incidence is relatively close.

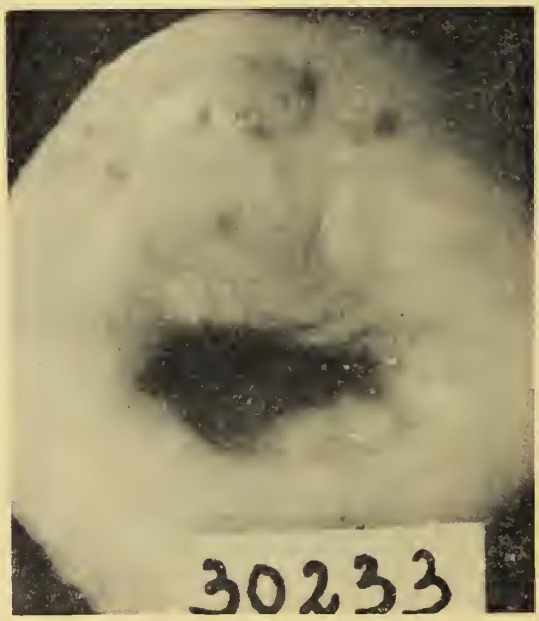

FIG. 1. Normal-appearing cervix. Cytologic examination positive; biopsy showed carcinoma in situ.

In regard to the approach through serial sections of all cervices showing positive cytologic smears with histologic evidence of carcinoma in situ, we have discovered a small incidence of invasive carcinoma. Of 20 cases of otherwise occult carcinoma undetected clinically and only detectable by cytologic examination and proven by histologic examination, 85 per cent were proved to be carcinoma in situ and 15 per cent were proved to be carcinoma in situ with early invasion. These early invasive lesions were in all instances small breaks in the basement membrane, with early intermingling of the fibrous connective tissue and of the epithelial cells. Occasionally this disruption was found in the superficial epithelium; in other portions it was found deep in the tissue around glandular structures. These extremely early lesions found by the use of serial sections, without evidence of invasive carcinoma adjacent or even in other portions of the cervix, we believe give great weight to the thesis that carcinoma in situ is a precursor of invasive carcinoma. Figure 1 shows the cervix of one of our cases. The diagnosis of malignancy was made by cytologic technic. Multiple sections of the cervix were made from a coned specimen,

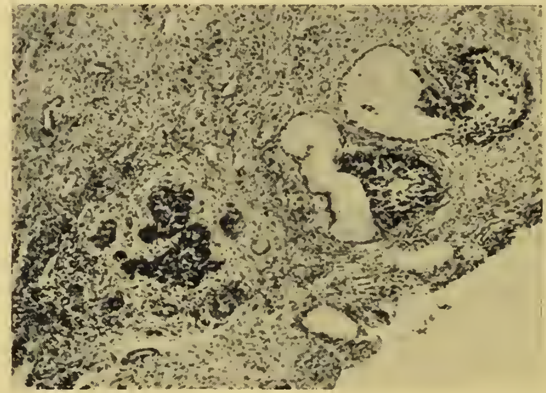

FIG. 2. Distinctly invasive cancer existing beside carcinoma in situ, involving part of a gland. The remainder of the surface showed carcinoma in situ. No other invasive cancer was found after serial sections of the entire cervix.

and in only 1 area was this early invasion found (figure 2). Of particular note, of course, is the clear-cut evidence of in situ carcinoma in a gland adjacent to this area. Other portions of the cervical epithelium showed changes similar to that seen in this particular gland, with extremely hyperplastic basophilic nuclei and active mitotic division. The similarity between the cells in situ and the invasive cells is striking in this photograph. The question of malignancy is clarified further by the connective tissue changes which show activity of the fibroblasts and the cellular infiltration about this invasive tissue. The uterus was later removed and serial sections of the entire cervix were made. No residual lesion could be found in the entire uterus.

If this were an isolated instance its value would be weak. However, the fact that we have been able to find 3 such cases is of particular note, and these cases have been found among 20 patients investigated. Further examination, we are certain, will lead to further discoveries of similar lesions.

Consideration of the counterpart leads us back again to further supportive evidence. Examination of active, squamous-cell carcinomas of the cervix, in which the extension has not completely destroyed the cervix itself, reveals the presence of carcinoma in situ adjacent to the invasive lesion. In these situations the question of cancer is uncontested. However, the association of carcinoma in situ and invasive carcinoma is so intimate and so interrelated by its juxtaposition that it adds weight to the argument. In former years carcinoma of the cervix was discovered when it was a clinical entity, and at that stage the carcinoma was rarely studied in any detail histologically except for diagnosis. The uteri were seldom removed before X-ray therapy was given, and examination of a sufficiently large extent to allow the diagnosis to be clearly established was rarely made. However, with these early discoveries of cervical carcinomas, early invasive cancers have been found in which serial sections bring out the evident relationship of this carcinoma in situ lesion.

The conclusions to be drawn from this discussion are these:

1. Isolated cases have been encountered in which a diagnosis of a carcinoma in situ was first made and in which a diagnosis of invasive carcinoma was later made after a period of elapsed time. This is not proof itself because it lacks the absolute knowledge that the lesion was a pure carcinoma in situ in the beginning.
2. Statistical information indicates that carcinoma in situ and invasive carcinoma occur in population groups approximately at the same rate. Carcinoma in situ occurs in the age group of approximately 35 to 40 years; invasive carcinoma occurs in the age group between 45 to 50 years. This correlates with the cases followed over periods of time in which the in situ carcinoma has developed into invasive carcinoma.
3. Carcinoma in situ is found in practically every case of invasive carcinoma, and in 3 of our own cases extremely early invasive carcinoma lesions were found in a tissue which was otherwise widely scattered with carcinoma in situ.
4. Careful follow-up of all cases with cytologic evidence and serial sections of the cervices will ultimately lead to a clear-cut answer. The results will undoubtedly prove clearly the relationship of carcinoma in situ to invasive carcinoma.

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Editorials

THE MULTIPLE FUND-RAISING CAMPAIGN

As President of the Washington Heart Association, I have followed the meetings of the Interim Committee on the Multiple Fund-raising Campaign for the District of Columbia closely. On one hand, there seems to be an effort to prove one point only—that a single campaign for raising community funds is the one and only answer to the problem we are all facing, the annoyance of too-many campaigns. On the other hand, there seems to be a sort of passive but determined resistance to this plan. Yet there has been surprisingly little frank and free discussion of the pros and cons of either point of view. It appears that the "pro-single" campaign groups wish to present the "pro" arguments only, and, if possible, bring about a quick decision. Their motives may be above reproach. These people may honestly believe that there is only one good plan, and they may be right, but the method has forced the "cons" to look with some suspicion on this assumption of rightnesss and to refuse to discuss a matter so presented that they would be put in a defensive position. They may feel their stand is valid, too, and they may be right.

It is basic democracy to admit that all sides of a question need to be thoroughly explored before any decision is reached. I would like therefore to propose that we get down to serious, full and free discussion in our search for an ultimate solution that will be good for all elements concerned.

One big single campaign has been referred to repeatedly as though (1) it had been tried only in Detroit or a few other cities or (2) it had been tried out by the Community Chest years ago and therefore was merely a repetition of that experience with a different set of agencies involved but identical community feeling. In other words, that there had been many fears and resistances then, as now, but that experience had cleared them all away.

I should like to look at that latter contention with you. Twenty years ago the Community Chest here came into being. Fears and resistance were largely based on theory. Only a few large-city Chests were then in existence and still fewer with a long enough life to be a test of experience. Member agencies feared loss of identity, loss of special interest, of public acceptance and understanding, of lessened Board responsibility; new and small agencies feared their growth would be frozen in infancy; large and popular ones, sure of public acceptance, saw themselves hindered with the weight of those unable to stand alone. Givers with special interests foresaw being forced to support organizations they did not approve. Business firms desperate for a solution to multiple appeals promised full support of a Community Chest. Many of these fears have since been realized, not dissipated.

We are now faced with a very similar situation with this big difference. Twenty years ago experience with a single, over-all campaign was ahead. Today it is behind us. Then we were dealing with theory, now with fact.

Believe me, I mean no criticism of the Community Chest when I point out that in Washington, due probably to the special set of conditions here, the Chest cannot be pointed to as overwhelmingly successful and one on which a

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia

newer, all-inclusive organization should be patterned. Why the Chest has so regularly failed in its objective I am not prepared to say. But that it has failed is part of community record. Like any such organization, it had its honeymoon year of success in its first campaign. Since then it has had only three successes—and one in a war year bolstered by war-relief appeals and patriotism. Its campaign goals were varied and challenging—from the honest-high to the too-low, to the middle compromise. They all failed. Why? I don't know. But you cannot blame some of us for wondering what chance for success a comparable organization here would have, using the same methods which have thus far failed, and bringing to it also the Chest's particular set of opponents. It is no theory that the single all-inclusive campaign has not succeeded in Washington as it has in other cities. It is a fact.

It is a fact, too, however, that the one campaign did supplant over fifty for many years, with only the Red Cross as a second major campaign. Thus it accomplished that objective. But it also seems to be a fact that there is considerable discontent among existing Chest member agencies due to the seriously limited budgets. So much so that many of them are now, with the consent of the Chest, raising money in various ways outside of the Chest. This of course adds to rather than reduces the number of campaigns. Thus, some of the earlier fears of stultified growth in essential services of member agencies may seem to be justified.

As for loss of identity, givers and agencies alike complain that no one really knows the names of Chest agencies and few really understand or appreciate their service. It is even argued that this is one reason why the Chest has failed. And many claim that the gap between giver and receiver is now so wide that there is no longer any satisfaction in the act of giving. Thus we are not dealing with the theoretical disadvantages, but twenty years of proof, when the same fears are now expressed by health organizations who believe that their subject-matter should not be smothered.

And, too, it was the businessmen of Washington who helped establish the Chest twenty years ago and helped it into its first successful campaign. According to the public statements made repeatedly by Chest officials, the failure of the campaign has been for years due to inadequate support by business organizations. If this is so, then it might be questionable how adequately they would support a larger campaign after the first flair of enthusiasm is past and the memory of the years of too-many campaigns becomes dim.

These are the considerations which give us all reason to pause and consider. While it is altogether possible that the one-only campaign is desirable and practical, we should plan for it slowly and carefully, analyzing and avoiding past mistakes and building a new, stream-lined organization.

And now may I speak of the Detroit plan which is being referred to so often because of its apparent success. I say apparent because there are some rumors that perhaps its success is more on paper than in reality. That I know nothing about. But I do want to point out what our own Board has considered. First, that conditions in Detroit and Washington are not comparable. We have no automotive industry to standardize and enforce such policies as designation and payroll deductions. We have no Henry Ford to underwrite or to wield a big stick among business associates. Success there does not insure success here. But more important, such success could be almost guaranteed their first year, when all enthusiastic proponents would almost guarantee it as justification for their backing. Even that plan will show up faults and weaknesses as time goes on. Would it not be well for us to keep our eye on that situation long enough to test its true strength, rather than to rush in on what is admittedly still experimental? By watchful waiting we can learn much for our own advantage later.

Which brings me to one last point and that is that we may be trying to go too far and too fast. The compromise plan already suggested, that of uniting all major national health agencies, with or without the Red Cross, seems to many of us to have merit. The community probably could stand two or three major campaigns. It would test the relative strengths of each fairly specialized appeal and give contributors more leeway in choosing the type of service they prefer to support. The Chest could stand the test of relatively little competition. The health agencies could experiment in a small way with some of the advantages of federation. But even this plan should stand scrutiny and close examination for practicality and desirability. Yet, as a plan, it deserves as thorough an examination as any other being considered.

And such action takes time—all the time that is needed to make sure that we are on the right track.

Bernard J. Walsh, M.D.
President, Washington Heart Association

THE MEDICAL PROFESSION AND PREPAREDNESS

Medical men in their training acquire a sense of responsibility—responsibility to patients, to other physicians, to the community, and to the Nation as a whole. Nowhere is this better demonstrated than in their reactions to the defense needs of the land. In every great call to duty the medical profession has responded willingly and ably.

Medical education also trains men to learn by experience. And this has been demonstrated amply since World War II in medical activities looking toward proper military and civilian preparedness in its medical and health aspects. In fact, the medical profession has been more "on the ball" than most other groups, including, when it comes to civil defense, the Federal Government.

It was a medical man who warned that we would have war with Japan—to be laughed at by presumably better informed persons.

Following World War II the American Medical Association set up a committee on military medicine, which later became the Council on National Emergency Medical Service. This Council conducted a questionnaire survey of all veteran physicians; it also set up a complete inventory of the medical manpower of the country, ready for instant reference in case of need, an inventory possessed by no other agency.

This Council, organized in 1947, stimulated the organization of state and local committees of like function, which all too often found no agency of state or National Government with which to coöperate.

Fortunately, now things are in better shape; the National Securities Resources Board since April 1 has had a chairman. It has gone into high gear.

When the National Blood Program of the American Red Cross was started, the American Medical Association created a Committee on Blood Banks, both organizations having preparedness as their principal motivation. The AMA has just completed a survey of the blood banks of the country.* It is preparing now to help standardize and correlate all existing blood banks and the National Blood Program of the Red Cross in order to assure a continuous and adequate supply of whole blood and blood derivatives for any emergency.

The American Medical Association takes seriously its responsibilities regarding allocation of medical manpower in emergency. In 1949 the House of Delegates authorized the Council to set up a system of priorities regarding responsibility for personal military service. In 1950 at San Francisco the Association reaffirmed its full coöperation with the armed services. The Council on National Emergency Medical Service in late July recommended to the Board of Trustees a priority system of medical induction.

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* See Bulletin 75, Bureau of Medical Economic Research, A.M.A., 1950.

In all of these ways and many others the medical profession has tried to anticipate world developments and has wielded its great influence constructively. Its counsel and its help are welcomed and sought after by all Government agencies concerned with national defense and civil defense.

It has been recognized for a long time that another great world conflagration could easily demand total mobilization; there might be no nonparticipants. The possibility of sudden attack in any internal target area by modern devastating weapons looms large.

The task of allocating not only medical manpower but also medical supplies and technical "know-how" to the best advantage in the armed forces and also in the civil and industrial forces behind them will demand the highest degree of wise and skillful planning and objective thinking. This will require the prayerful help of all bodies of organized medicine and of every individual physician. If we have this we shall never need be concerned about the attitude of the medical profession.

H. P. R.

NURSING EDUCATION

In recent weeks the radio stations in Washington have been broadcasting appeals to girls to join the nursing profession. We in the medical profession realize the urgency of such pleas, for it has become increasingly apparent in the last few years that the nursing profession has lost many candidates to other fields of endeavor.

As an example of the critical need we might review what is happening right here in the District. There are eight nursing schools in Washington. These are maintained at Gallinger, Emergency, Sibley, Garfield, Georgetown, Providence, St. Elizabeths and Freedmen's Hospitals. Washington Sanitarium also maintains a school of nursing in Takoma Park, as does Alexandria Hospital, but these, of course, are not within the District boundaries. Of these eight schools just one, Georgetown, has realized its quota of students, while the other seven lack from one third to one half of eligible students to make full use of the facilities they have to offer.

The problem does not seem to be one of attracting any type of girl to the nursing profession but rather of interesting the proper type of girl. There were actually more applications received than there were places available, but not all could fulfill the requirements of scholarship and personality that go to make a successful nurse, and the ineligible ones consequently had to be steered into other channels.

Although we as physicians realize the importance of skilled nursing in the postoperative care of our patients or in their speedier convalescence after an illness, it is probable that we do not recognize every opportunity to encourage the more intelligent young girls to enter the nursing profession. Often a girl will seek the advice of the family physician in choosing a career, and many times there are those in our own circle of friends or family who turn to us for advice. Do we emphasize to them that there is no profession more aptly suited to the temperament and nature of young women than the nursing profession? It derives its success from the application of the feminine qualities of maternalism, gentleness, and loyalty to one's avowed task. It is truly the distaff side of medicine.

Perhaps we are too close to the profession to appreciate it. In our intimate daily contact with nurses we are at times annoyed by what appears to be their regimentation, forgetting that while we see them only for a few moments of the day, their tasks include many necessary duties which make for the greater comfort of our patients. The era is passing when the tyrannical supervisor of nurses crushed the eager spirits of these young girls. We all remember them and would hesitate to recommend that any friend of ours should place herself under the tutelage of such a person. The modern nursing supervisor is apt to be a younger and more understanding woman who has received her appointment as supervisor on the basis of her extensive study and knowledge in the training of young girls rather than on the basis of seniority. We owe these women every support, for the trained nurses they are endeavoring to turn out are not only better equipped educationally, but emotionally as well.

There are a number of advantages to entering the nursing profession. The pay is equal to, and many times exceeds, that of business secretaries. Furthermore, the door is open to diversified channels of employment that are closed to all other non-nursing professions, as, for example, transcontinental airline hostesses. A nursing education is an investment. It is insurance against the possibility of future adversity, because a trained nurse can always find employment. Finally, as a point not to be overlooked in discussing the aspirations and ideals of young women, it is the field having the highest eligibility for marriage of all careers chosen by women.

Recently our own Woman's Auxiliary has undertaken a program directed toward helping more girls go into nursing. Starting this fall they are offering two scholarships a year. These scholarships are to be given to applicants chosen from any one of the schools of nursing in the District. Since each scholarship extends over a three-year course, this program has as its ultimate aim the sponsoring of six student nurses in any one year.

Let us unite with the nursing profession and wholeheartedly support its drive for larger enrollments. We as physicians need them and cannot work without them. When a young girl comes to us let us counsel her with sincerity and enthusiasm and reap for ourselves the gratification of having given sound advice toward this worthy profession.

J. M. Williams, M.D.

In and Out of Focus

BY THE OBSERVER

Back Again

Dog days in Washington are hardly conducive to cerebration. Lassitude is a common affliction and one has little enthusiasm for tasks which require concentration. Vacations which were taken earlier in the year seem remote, as if they never happened. But life must go on and there is work to do.

It was in this mood that this month's column was undertaken. It will require time for your Observer to get back in the swing of things. Not that there has been any lull in his activities, but in summer they are different. It is a period of preparation which in some ways is more strenuous than the activities of the fall and winter months. Plans in connection with the forthcoming Annual Scientific Assembly—and there are many—require daily attention. Organization of committees for the new year takes place in midsummer. And there is always some crisis or other urgent business—just now the ramifications of the Korean conflict. And, finally, there are the editorial duties in connection with the Medical Annals.

Bound copies of the Annals in your Observer's office date back to January, 1931. However, he did not assume his duties on the editorial staff until June, 1938. Six months or more passed before "Pertinent Paragraphs" made their appearance. This was the forerunner of the present column, which made its debut in the June, 1943 number. It has appeared regularly since, except for a three-month vacation period in midsummer. These facts are of little importance to anyone but your Observer, but readers may find his reactions upon thumbing through old issues of the ANNALS mildly interesting.

He was impressed by two things: (1) the volume and variety of the material published, and (2) the frequent inadequacy of presentation. The latter discovery was not only disappointing but embarrassing. If it were possible to destroy much of it, he would do so. But this, he decided, was nothing but conceit, for the material was as dead as if it had never been written. A medical historian may in years to come find something of interest in the column, but that is all.

This is an old story to writers—and let it be made clear that your Observer makes no pretentions as a writer—many of whom make it a rule never to read what they have written once it is published. That may be a good idea, but it would be a better one to allow their material to cool for a period before editing it for publication. That, however, is impossible for your Observer. What he dispenses is always written under pressure and in great haste.

On more than one occasion in the past several years, your Observer has felt that this column's existence should be terminated and he should devote himself to some other journalistic endeavor. Kind words and a pat on the back have had the effect approval usually has. But this is not the sole reason for the continuance of the column. Far more important to your Observer is his freedom to express his views without any restrictions or censorship, the Editor thereby displaying his confidence that reasonably good judgment will be exercised. There have been times when the Editor must have had misgivings, but he has never expressed them. And so your Observer is back again for another year.

So—for better or for worse—he resumes this column. Naturally, he hopes for the best.

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The Coming Assembly

Preparing for the ANNUAL SCIENTIFIC ASSEMBLY is at best an arduous task. It has been made doubly difficult this year because the ASSEMBLY scheduled for October 2, 3 and 4 has been planned in the shadow of a possible world war. Nevertheless, there should be no hitch in the plans, and chances are that things will run smoothly unless there is a general mobilization for all-out war. That does not seem likely early in August, although the news from Korea is still none too encouraging. However, the Pentagon assures the people that better days are ahead, and long before these lines appear this prophecy may have been fulfilled.

The coming ASSEMBLY is by far the most ambitious meeting sponsored by the Society and should top all previous efforts for a number of reasons. All of the space on the mezzanine floor of the Hotel Statler, Washington, has been contracted for. The scientific sessions will, as usual, be held in the Presidential Ballroom, while the Congressional, Federal and South American Rooms will be used for a variety of exhibits. On the L Street side of the Statler there is a series of rooms, the largest of which is the Pan American, all of which will be used for the showing of color television, a novelty which still attracts large numbers of physicians at medical meetings.

Of course the heart of any medical meeting is its scientific program. The high standards of the past years will certainly be maintained. In addition, there will be the usual luncheons sponsored by the Society, the George Washington and Georgetown medical schools. Speakers who have been invited to appear at these luncheons are of unusual distinction and, if they accept, will make the headlines not only for themselves but for the ASSEMBLY.

The Blue Shield Commission will present a special exhibit and the program for the Public Meeting. Here again there will be a nationally known speaker.

A feature of the Annual Dinner will be the appearance of Mr. Jean Hersholt, who is known to many thousands of radio listeners as "Dr. Christian." Mr. Hersholt will be recognized by the Society for his splendid characterization of a physician and will be presented with a certificate for meritorious serve to the medical profession. The ceremonies on this occasion will be broadcast nationally.

Then, too, there will be ceremonies held in honor of District physicians, to whom certificates will be awarded. The choices this year are Drs. Harry H. Kerr, Arch L. Riddick, and Fred C. Fishback.

The Assembly is not only a fine "show" but serves several very important purposes so far as the Society is concerned. It offers an unusual opportunity for fraternization; it stimulates the interest of physicians in the newer things in medicine; it gives the impetus an organization needs at the beginning of the year; it attracts to Washington not only physicians from nearby states but from the armed forces stationed in or near Washington; and it creates among Society members, and nonmembers, for that matter, pride in worthwhile accomplishment.

Perhaps the most important contribution of the Assembly is the fact that it brings to the attention of the country the fact that Washington is one of the country's great medical centers.

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Medical Officers Needed

The rapidly expanding military establishment must have doctors. Ever since hostilities began in Korea this has been made clear time and again. Yet the response is disappointing; in fact, so much so, that steps have been taken by various medical groups and the Congress in an effort to speed up enrollment, first by voluntary means and, if necessary, by the draft. By the time these comments appear it is to be hoped the situation will have changed for the better.

Late in July the Physician-Veterans of World War II took a hand in the local situation. Among other things PVWW recommended the order of selection of physicians for military service and the voluntary methods it believed should be tried before resorting to the draft. Favored was the revival of the procurement and assignment committees by counties, each of which would be composed of seven members, a majority of whom should be physician-veterans of World War II, appointed by the governing boards of county medical societies.

These recommendations were submitted to the District Medical Society's Executive Board, which also had before it the proposals adopted by the AMA's Council on National Emergency Medical Service and approved by the Association's Board of Trustees on July 22, 1950. The latter set forth priorities in selecting physicians for military service in the following order:

"1. Those recent graduates whose internships were taken in hospitals of the armed forces but who have not served since then as medical officers on active duty.

"2. Those graduates who were enrolled in ASTP or V-12 programs during World War II and who did not serve as medical officers, and all others who were deferred by Selective Service to continue their medical education.

"3. Those ASTP and V-12 graduates who entered service as medical officers subsequent to V-J Day.

"4. Physicians graduating prior to World War II whose services were not required.

"5. Those physicians who served the least time in World War II during active hostilities."

A resolution adopted by the Council on July 29, which, when this was written, had not been approved by the AMA's Board of Trustees, also received the Board's attention. It reads as follows:

"Whereas, The international situation is creating an increased need for physicians by the armed forces; and

"Whereas, Legislation has been suggested for an amendment to the Selective Service Law to provide for the special call of persons with various special skills that are needed for the national defense; therefore, be it

"Resolved, That the Council on National Emergency Medical Service recommends to the Board of Trustees of the American Medical Association the support of such legislation as it applies to physicians, with the understanding that an appropriate body be established in Government to implement the following conditions relative to the utilization of physicians by the medical departments of the armed forces:

a. That the induction of physicians into the armed forces be kept to the minimum needed to provide adequate medical service to the personnel of these forces, and

b. That appropriate consideration be given to current and potential needs of the civilian population for medical services, and

c. That in calling civilian physicians for military service the following priorities be observed:

1. Those physicians who were permitted to pursue their medical educations during World War II and who did not serve as medical officers.
2. Those physicians who were below the Selective Service age during World War II.
3. Those physicians who graduated prior to World War II but did not serve with the military services during the last war and those physicians who had service as medical officers but entered service subsequent to V-J Day.
4. Those physicians who served the least time in World War II during active hostilities.

d. That in case of prolonged mobilization some provision be made for the rotation of physicians between the military service and the civilian population."

The Board gave consideration to all these proposals when it met on July 31 and, as a result of its deliberations, it adopted the following motion:

"That the Society notify the Board of Trustees of the American Medical Association that it supports the action of the Board of July 22, 1950 with respect to the order in which physicians should be selected for duty with the armed forces; that it support the Council on National Emergency Medical Service in its action of July 29, 1950 in which it sets forth its recommendations relative to the order in which physicians should be procured for the armed forces, and notify both the Council and the Board of Trustees of such support; that it recommend to the Council on National Emergency Medical Service and the Board of Trustees of the AMA that the above recommendations be implemented by procurement and assignment committees organized by component county medical societies in an effort to obtain a sufficient number of physicians for immediate duty in the armed forces by voluntary means, such committees to be composed of 5 to 7 members, a majority of whom shall be veterans of World War II; that these committees determine the essentiality of physicians in civilian practice and make every effort to persuade the selected physicians to volunteer for service in the armed forces."

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The Real Issue

Annual meetings of the American Medical Association usually run an even course. There are very few sensational or even very exciting incidents. If there are exceptions to this rule they occur in the House of Delegates which fashions the AMA's policies or in connection with groups not directly affiliated with the Association but which hold their meetings at about the same time and in the same city.

In recent years the Conference of Presidents and Other Officers of State Medical Associations has provided some excitement by selecting speakers who are in themselves controversial or who disagree with the AMA's position on medical care. Certainly no more outspoken and feverishly active advocate of compulsory health insurance could have been chosen than Harry Becker, Director of the UAW-CIO Social Security Department, who addressed the Conference in San Francisco.

Many of his listeners agreed that Mr. Becker hit the nail on the head when he said, "The need for prepayment [medicine] is not at issue; the issue, rather, is whether prepayment shall be accomplished through a system of public insurance or through a system of voluntary insurance augmented with governmental action."

However, such statements as the following, to put it mildly, were not well received! "Organized labor feels that the demand for health insurance should be met by a comprehensive national health program developed within the framework of our national health and social security policy."

It is not possible to reprint all of Mr. Becker's address here, but selected quotes will give the reader a pretty clear idea of his views.

In reviewing labor's Nation-wide experience with prepaid medical care Mr. Becker said: "The choices available to labor today for programs developed under collective bargaining are:

1. To utilize the commercial insurance company plans with their cash indemnity approach.

2. To participate in Blue Shield Plans sponsored by the state medical societies.

3. To establish Union-operated clinics and hospitals.

4. To promote and use such organizations as the Health Insurance Plan of Greater New York, the Group Health Association of Washington, D. C.; or to make agreements directly with physicians in group medical practice or with hospitals with salaried physicians."

Enlarging upon these categories he said that "prepaid medical plans [sponsored by commercial insurance companies] fail to meet the standards for prepaid medical care implied by the American Medical Association in its criticism of national health insurance proposals. The insurance companies at best provide only cash benefits with payments depending on the surgical procedure or other service performed. These cash benefits bear no direct relation to the cost to the worker of his medical care. Nor do they bear a proper relation to the kind of care for which his physician or physicians should be reimbursed. Thus, they meet neither the workers' nor the physicians' needs for prepaid medical care."

Blue Shield Plans, he insisted, have "demonstrated the following inadequacies:

"1. They do not provide real security to the worker against the economic consequences of illness. The reasons are two-fold: first, the Blue Shield Plans are limited in scope and generally subscribers have only protection against the cost of surgery; second, the worker has no assurance, when he or members of his family are ill, that the Blue Shield allowances will meet the full cost of surgical or other types of care; and further, the cash indemnity benefits bear little relationship to the charges made by physicians or to the amount of services rendered.

"Blue Shield cannot be the prepayment plan of choice for programs set up under collective bargaining unless the worker can be assured that when he obtains Blue Shield coverage he is given adequate health insurance protection against the costs of medical care. The worker wants security against the cost of illness in the same manner that he wants security against the time when he will be too old to work and too young to die.

"The Blue Shield Plans can meet the objection that benefits provided are not full-payment for physicians' services rendered by removing the income ceilings entirely, or at least by raising them to a level which will assure workers that when illness strikes the full cost of care will be met through the prepayment plan. This would require a family income ceiling of at least $5,000 rather than the present prevailing ceilings of from $2,500 to $3,000. And this income ceiling should be raised without increasing fees and rates to a level that is prohibitive. In most instances any increase in fees should be minor in character to permit selective adjustment of specific fees, and not across-the-board increases.

"2. In general, Blue Shield plans are too expensive for the protection provided, because operating costs are still too high. In 1948 the average Blue Shield Plan spent somewhat less than 15 per cent of total income for operating expenses. Some Blue Shield Plans have an operating expense more favorable than the national average. Others have operating expense records of one fourth and more of income. This is too high for a successful prepaid medical care plan.

"Also, Blue Shield Plans, to be successful in competing costwise with other types of prepaid medical programs, must experiment with methods of paying physicians, including methods of paying for group medical practice and outpatient clinic services.

"3. We feel that medical insurance plans should maintain and promote incentives for improving the quality of medical care. One of the major American Medical Association criticisms of national health insurance is that it believes the quality of care would be lowered. But the voluntary Blue Shield Plans have done practically nothing to improve the general level of medical care, even though much can be done. In fact, some Blue Shield Plans are specifically prohibited from being concerned with any aspect of the quality of care.

"If medical review and study were given to various aspects of the Blue Shield program, such as studies of doctors' bills and the procedures performed, a necessary public service could be rendered. Group medical practice can be encouraged by the Blue Shield Plans as a measure for improvement of quality of care. There are innumerable examples of how an organized prepaid medical program sponsored by the medical profession could take positive action within the framework of acceptable medical ethics to raise the general level of medical care.

"4. Organized labor and most, if not all, management groups want a health insurance plan that is concerned with building a program which removes the economic hazard of nonsurgical as well as surgical illnesses and chronic disease, and which also builds toward prepayment for integrated preventive and treatment programs. However, with but one or two exceptions, the Blue Shield Plans have done nothing about such major problems as heart disease, cancer, rheumatic fever, diabetes, tuberculosis, burns, osteomyelitis, severe fractures and other types of chronic or prolonged illnesses that can be more costly to the worker and his family than a hospital admission for a surgical procedure. These types of chronic illnesses are even greater economic burdens to the worker than the type of medical care now covered by many Blue Shield Plans.

"The Blue Shield Plans have failed completely to build toward programs of comprehensive medical and surgical coverage for the full range of medical services, including preventive services, for which prepaid medical care is needed. Where integrated and coördinated community services for adequate care of certain types of illness are lacking the Blue Shield Plans have not taken initiative in working with the medical and hospital groups for the providing of programs that the Plan administrators and Boards of Trustees know to be desirable. The Blue Shield Plans have not done as good a job of health education as some of the insurance companies. The Blue Shield Plans have not accepted their social responsibility to join forces with others in the medical community in building improved city-wide and state-wide medical care services.

"Success of voluntary prepaid medical care plans should not be measured alone by the number of subscribers. It is impressive to show the growth of these plans in terms of the number of subscribers. It is significant that 14 million Americans have Blue Shield coverage—but the gap between the type of program that is provided and what is needed is even more significant. We must keep an eye on how rapidly and how adequately we are meeting the real needs of the people.

"Generally speaking the Blue Shield Plans are not giving the public much more than the insurance companies, and in some cases not as much. This is a serious charge.

"The medical profession has a great responsibility in this matter if the voluntary plans are going to meet the objectives of health insurance programs set up under collective bargaining agreements. The medical profession should be mindful, too, of the fact that in many states, under state law, the medical society plan has been given a virtual monopoly as the only nonprofit prepaid medical care plan. The kind of monopoly that Blue Shield enjoys requires a high degree of social and community responsibility."

Finally, he observed that "in large cities, if presently available prepaid medical care plans are not prepared to move into the broader aspects of the voluntary prepaid medical care job in connection with collective bargaining programs, the New York Health Insurance Plan pattern may be an answer. In smaller cities, the group medical practice prepayment plans built around one or two local hospitals may be a solution for the collective bargaining programs."

Mr. Becker then directed attention to the following "barriers" between the medical profession and organized labor which prevented the development of collective bargaining medical programs satisfactory to both groups:

1. The medical profession's lack of real support of voluntary prepaid health programs. An example, the difficulties of Blue Cross "in establishing national standards of hospital protection to assure full payment for hospitalized illness." Mentioned were the opposition of state medical societies to complete coverage of hospital costs under Blue Cross. [Observer: This needed further explanation but it was not given.]

2. Efforts of the AMA by means of publicity "to frighten doctors and others into political action in support of the official AMA position against national health insurance." He accused the Association of misrepresentation.

"Labor is aware that hundreds of thousands of such folders are being distributed while at the same time there is no evidence that organized medicine is making any comparable efforts to meet and solve the problems which are forcing the people to reject the voluntary plans as a substitute for a national health insurance program."

3. The AMA's opposition to the inclusion in the Federal Social Security program of cash income payments for persons who are unable to work because of permanent and total disability.

"Labor will not soon forget that the entire resources of the AMA were thrown into the fight to oppose giving the permanently and totally disabled the same kind of protection that is now given the unemployed and the aged."

Mr. Becker concluded with the observation that voluntary health insurance plans are not a "valid alternative to national health insurance."

> "When we look at prepaid medical care there are two main problems that come to mind: (1) How can we give all people prepaid comprehensive medical protection, and (2) What can we do to make higher standards of care generally available? Neither of these tasks is simple and neither can be accomplished quickly. But we are going to have to solve them.
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> "Organized labor believes that the solution to these problems can only be met through establishment of a comprehensive and coördinated national health program with national health insurance an integral part of that program. Labor will continue to press for such a program within which voluntary health insurance plans may operate when they meet standards of efficiency and standards that protect the quality of care. And, as labor's drive for legislation is pushed forward, we will continue establishment of immediately useful nonlegislative programs through collective bargaining and other means."

Mr. Becker is, of course, an extremist. He is chary of giving credit where credit is due, that is, to those who have devoted themselves without stint to making voluntary plans work. While these plans may not be the final answer they are working surprisingly well and, in your Observer's opinion, hold much promise for the future. Making allowance for Mr. Becker's bias it must be granted that his address was stimulating and provocative. As such it can serve a useful purpose by making doctors think on a subject in which too many are still disinterested.

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A Perennial Subject "Everybody complains about the weather," said Charles Dudley Warner in the *Hartford*, (Conn.) *Courier* (1890), "but nobody does anything about it." Well, that's certainly true of the multiplicity of medical meetings in Washington. But perhaps there is very little that can be done about it until enough doctors suffer from nervous exhaustion or become so surfeited with meetings that they go on a strike against them.

As every doctor here knows, there are more medical societies in Washington than in any other large city. At the last count, if your Observer recalls correctly, there were thirty-odd medical societies, both small and large, in the District. In addition, there are sections of the District Medical Society and various hospital staff organizations, lay health groups with professional offshoots—all in all, a formidable array of organizations which make impossible demands upon the doctor.

This has become a serious matter for the District Medical Society as it must have for other medical organizations. The question of primary allegiance may arise and here physicans should be reminded that the Society is the parent organization; membership in it is a basic requirement to membership in most other medical groups. It is therefore exceedingly important that it remain strong and effective.

In an attempt to find out what members thought about the situation, the Society's President, Dr. William M. Ballinger, recently directed a letter to the membership in which he asked three questions: "Do you feel that there are too many medical meetings? If so, what suggestions have you to offer? Have you any recommendations for the Society's Program Committee?"

There were a surprising number who replied, there being 163 who took time out not only to answer "yes" or "no" but to express in some detail how they felt about the matter. The majority, of course, agreed that there were entirely too many meetings.

President Ballinger has commented on the replies to his letter in the President's Message in the July issue of the MEDICAL ANNALS. Your Observer would like to go into a little more detail by quoting some of the suggestions which he believes will be of interest to readers.

"Coördinate scientific programs of the Society with those of the universities and other groups, through a coördinating committee for programs."

"Suggest that outstanding experts be invited to speak. These men draw large crowds. Others speak to an empty auditorium."

"Arrange programs so that at least 50 per cent are intended for (and digestible by) the 'average' physician. Whenever programs are highly technical and entirely 'specialistic' in character, stress this fact in the announcements. Too often titles are quite misleading and programs are of benefit to only a small percentage of those attending."

"Request each one of these organizations, such as the Heart Association, Diabetes Association, the Medical Schools, as well as the Army, Navy, U. S. Public Health Service and Veterans Administration, to appoint a a representative who would be able to attend a joint meeting called by you. The purpose of such a meeting would be to correlate and integrate, in so far as possible, the program activities of these organizations, as well as those of the Medical Society."

"Practical programs; more local men in proportion to outside; more informality and more discussion to be encouraged; and more interesting case reports."

"Each special section of our Society should dedicate itself to building up and contributing to the general welfare rather than the more circumscribed special-group interest which characterizes our present diversified programs."

"That all medical societies and hospitals in D. C. send in a list of the dates of their meetings to the Secretary. Where these meetings overlap or conflict, efforts should be made to advise those who are interested."

"Many meetings could be joint meetings on regular Medical Society nights. For instance, the Heart Association sponsored three meetings this year after the year's program was full. They were open meetings on Thursday night and could have been held on Wednesday night."

"Scientific meetings should embrace at least two or three varied medical or surgical subjects. When the announcement arrives at the member's office he glances at it, and if the evening discussion is on a subject in which he is not particularly interested, the announcement goes into the wastebasket. If you offer more variety, he will probably attend. Discussion from the floor should be encouraged."

"More pro and con meetings on treatment like the one the Diabetic Society sponsored."

"It occurred to me that a novel group of graduate exercises for the Medical Society to sponsor this coming fiscal year would be 'open house' type of 'grand rounds' to be given by the three local medical school faculties at their various teaching hospitals. I envision actual problem or lesson teaching cases being presented, with general discussion by the respective staff. Questions could be asked by audience members."

"The Society should sponsor each year, preferably late in the spring, one evening with ten papers of 10–12 minutes' duration each, allowing local doctors who have been doing research to present to the medical profession for the first time the essence of their work."

In looking over the returns your Observer discovered the following interesting facts: While many favored eminent speakers from outside the city, nearly an equal number wanted more local physicians on the program. Several proposed that representatives from the various organizations get together in an effort to find a solution to the meeting problem. This proposal has been accepted by President Ballinger, who plans to call a meeting in the near future.

At best, any solution agreed upon will only be a partial one because the basic fact is that there are too many medical organizations in Washington. However, an improvement in the present situation will be welcome, no matter how slight.

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Virginia Comes Through

Efforts of the District licensure board to establish reciprocal borderline privileges to practice medicine with Virginia have previously been recorded in this column. It may be of interest, however, to review the developments which recently culminated in the enactment of legislation by the Virginia Assembly.

For many years so-called borderline privileges have been granted to Northern Virginia physicians by the Commission on Licensure for the District of Columbia but the Virginia Board of Medical Examiners has been unable to reciprocate. Legislation was required which authorized it to extend borderline privileges to District physicians.

Corrective measures were made more difficult by the fact that the then Secretary of the Virginia Board was not sympathetic to the granting of such privileges. When Dr. George C. Ruhland, then Secretary of the District's Commission on Licensure, brought this matter to the Society's attention, the Executive Board instructed the Secretary to communicate with the nearby Alexandria City, Arlington and Fairfax County medical societies requesting their support in effecting a satisfactory reciprocal arrangement. The Alexandria City and Arlington County societies responded promptly, giving assurance that they would coöperate.

Many weeks passed without any further developments and, finally, Dr. Ruhland again called upon the Society for assistance. With the approval of the Executive Board the Secretary wrote a letter to the Medical Society of Virginia asking its help. The reply was not encouraging, the Virginia Society taking the position that until the northern county medical societies themselves appealed for aid it would take no action.

Nothing further was done until just before Dr. Ruhland's retirement, when he announced that the borderline privileges granted the Virginia physicians by the District would be cancelled as of October 1, 1949. Naturally there was a furor over this announcement, in the course of which it was discovered that the Arlington and Alexandria medical societies were engaged in obtaining the support of legislators in their jurisdictions for legislation which it proposed to have introduced in the next session of the Virginia Assembly.

The Society's Executive Board promptly requested the District's Commission on Licensure to rescind its order cancelling borderline certificates issued to Northern Virginia physicians and to wait and see what the Virginia Assembly did about the matter. The Assembly, largely because of the insistence of nearby county medical societies and legislators in their jurisdiction, obtained the passage of a bill granting borderline privileges to District physicians despite the fact that the House of Delegates of the Medical Society of Virginia refused to go along with their Northern Virginia members. The bill was duly signed by the Governor and is now law.

Applications for annual borderline registration can be obtained from Dr. Kenneth D. Graves, Secretary of the Virginia Board of Medical Examiners, 30½ Franklin Road, S. W., Roanoke 11, Virginia. They should be filled out as instructed and a statement obtained from the District's Commission on Licensure to the effect that the doctor is licensed to practice in the District. These together with one dollar should be mailed to the Secretary of the Virginia Board, who will issue a certificate granting borderline privileges. The certificate must be renewed annually on or before July 1.

The District's Commission on Licensure should be commended for its patience. The medical societies, the Virginia Board of Medical Examiners, and especially the legislators who took a hand in this matter deserve the public's gratitude. In the final analysis it is the people who will benefit by the removal of barriers which threatened to restrict the practices of physicians in the Washington Metropolitan Area in a manner which might cause inconvenience and even hardship.

* * *

"I Anser to Hi..."

One of the most difficult things for us to learn is not to take ourselves too seriously. Much of our unhappiness stems from frustrated ambition to be somebody. When we become obsessed with this idea we are treading a path which inevitably leads to disillusionment.

IMPORTANT NOTICE

Group Hospitalization, Inc., is now enrolling non-group subscribers. Physicians who may wish to enroll their office personnel for hospitalization benefits can secure information on rates and application forms by addressing their request to GHI, Transportation Building, Washington 6, D. C., or by telephoning Republic 5000.

Dr. Wilburt C. Davison points up this truism in an article entitled "Doctor William Osler" which appears in the April number of the *Westchester Medical Bulletin*. "Osler," Dr. Davison writes, "was one of the most human of human beings I have ever known. If I learned anything from him, it was that he loathed adulation and that he did not take himself seriously. I remember one woman who fondly and in syrupy accents asked him if he preferred to be called Sir William (he had been made a Baronet after he went to Oxford) or just plain Dr. Osler. He firmly but kindly deflated her by paraphrasing the bellman in the Hunting of the Snark: 'I anser to hi or to any loud cry.' "

But Osler was deeply serious about his profession and this fact, plus his great abilities, made him second to none in the realm of medicine. In what ways was he outstanding? Dr. Davison answers this question as follows:

"First as a physician: Osler's ambition, as he wrote several times, was to make of himself a good clinical physician. Certainly he succeeded. As a diagnostician he has never been surpassed. As a therapist, it has been said that he was a nihilist, but he was a nihilist only in the sense that he did not use drugs unless there was definite proof of their efficacy.

"The second pillar of Osler's fame was as a teacher. Under him the student for the first time was taught to work with the staff rather than listen to lectures. He also started the residency program in order to give young men an opportunity for training beyond the internship. However, as early as 1892 he pointed out the dangers of specialization. I am sure he would have felt that his training program had boomeranged if he knew that there are now 17,293 residencies in the United States and Canada. We must do what Osler did in his time—emphasize general practice to medical students because they cannot be legislated into that field in which they are so greatly needed.

"Osler's third contribution is practically forgotten. He is remembered as a bedside physician, but it is not generally recognized that he was the first clinician who did laboratory work. He introduced laboratory methods into McGill in 1875 and taught clinical pathology at the University of Pennsylvania from 1885 to 1889. During his sixteen years at Hopkins, he transformed and greatly enlarged the application of laboratory methods to medicine, and at Oxford he fostered research in physiology and pathology.

"Fourth, Osler transformed medical education, and was an early advocate of medical licensure. He also did much to elevate the medical profession itself, through the American Medical Association and in the organization of medical societies such as the Association of American Physicians and the American Pediatric Society. It is often forgotten that Osler was as much of a pioneer in pediatrics as Jacobi. He also laid the foundations of social service work and of the campaign against tuberculosis.

"The fifth basis for Osler's fame is his concise and accurate observation, as recorded in his writings. His bibliography has over fifteen hundred items. It is amazing that one man could have written so much. He is best known for his description of the five Osler's diseases. I never heard him speak of them as such, but they are so known. In addition, his textbook on medicine became the standard throughout the world, and went through sixteen editions and eighty-four printings. Each succeeding edition illustrated the progress of medicine. The tragedy of the last edition is that Osler's name was left off the cover.

"The next pillar is Osler as an historian. Each week at Oxford he would invite a group of us to his home and after dinner bring out some da Vinci or other books and talk about the authors. He gave us memories we shall never forget. In fact, some believe that his fame will rest more on his humanism than on his medicine.

"Last but not least was Osler's personal influence. His wonderful power made every young man he met feel that he was in the presence of one who was taking a personal interest in him. He made and held friends everywhere."

Osler's example should serve to remind us that only our good works live after us. As individuals, regardless of our seeming importance in the eyes of our contemporaries, we are soon forgotten.

T. W.

DELEGATES' REPORT ON THE 1950 ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION

The recent San Francisco session (June 26–29, 1950) was the largest ever held in that city. A total registration of 23,655 included 10,119 fellows and members of the AMA. The meetings of the House of Delegates attracted large audiences and the activities of the House were even more strenuous than in 1949. Keen interest in the work of various reference committees was evident; meeting rooms were constantly overcrowded.

This report by the delegates from the Medical Society of the District of Columbia calls attention to those actions of the House of Delegates most likely to excite strong local interest. It is manifestly impossible to discuss *all* the actions of the House. The minutes of the meeting were published in the *Journal of the American Medical Association.**

AMA Membership

No essential changes were made in the definitions of various types of membership in the AMA. The idea of abandoning the Fellowship category was considered but the category was retained. However, further study of the status of Fellowship will be made by an interim committee which will report back to the House of Delegates at the next meeting.

Dues for membership in the AMA were set at $25.00 for 1951 with the important difference that this amount will include the cost of subscription to the *J.A.M.A.* Although this represents a considerable reduction in total income for the AMA, no deficit is anticipated since the cost of continuation of the National Education Campaign is expected to diminish materially after this year. Additional dues for Fellowship were set temporarily at $2.00. It was decided further that the amount of dues for a coming year will be set at each regular annual session.

The collection of membership dues will continue to be made by the constituent associations and transferred to the AMA. The costs of collection will be defrayed by the AMA in amount equaling 1 per cent of the total collected.

The Board of Trustees has made the following decisions as to who shall pay the American Medical Association membership dues:

1. The county society shall determine when the payment of dues is a hardship, but in no case will the American Medical Association dues be remitted unless the county and state dues *also* are remitted.

A person in actual training for not more than five years after his graduation from medical school may be exempted if he is also exempted from state and county dues.

2. The dues of a physician who joins his county society after July 1 will be $12.50; if he joins before July 1 his dues will be $25.00 for that year.

3. A physician who transfers from one state or county to another will not be expected to pay the dues a second time; that is, he will not be expected to pay them in the state or county to which he has removed if he paid them in the state or county from which he moved.

National Education Campaign

Whitaker and Baxter were warmly commended for their part in the National Education Campaign. It was planned that during the latter part of this year the campaign would be stepped up greatly, including considerable use of newspaper and radio facilities for education of the public. Whitaker and Baxter have been retained for the campaign for 1951, but it is expected that the program in that year will be greatly curtailed. At present the permanent employees of the AMA in the field of public relations are being trained intensively with the idea that they will supplant Whitaker and Baxter, presumably by 1952.

The Twelve-Point Program of the AMA was reviewed by the Reference Committee on Legislation and Public Relations and the opinion expressed that this program could be augmented and clarified. No specific action in this regard was taken since it was felt that careful study of the problem must be made by a continuing committee appointed by the Board of Trustees.

Long reports were furnished by two special committees which had been sent to Europe to study medical care and medical education in the United Kingdom in relation to the changes in social order in that nation. These reports will be published fully in the *J.A.M.A.* They appear to be potent arguments against enactment of legislation for compulsory health insurance in the United States.

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* J.A.M.A., 1950, **143**, 975, 1073, 1161 (July 15, 22 and 29 issues).

MEDICAL PRACTICE

The most important action of the House of Delegates relating to the practice of medicine was concerned with activation of principles originally enunciated in a report of the Committee on Hospitals and Practice of Medicine in June 1949. Action on this original report had been deferred until such time as certain legal difficulties apparently inherent in the matter could be settled. The final action of the House is found in the minutes contained on pages 1090 and 1091 and in the first 3 paragraphs on page 1092 of the *J.A.M.A.* for July 22, 1950.

The action which has been taken provides a means for discouragement of that type of corporate practice in which a corporation or other organization hires a professional man and then sells his services to the public on a fee basis for the profit of the organization. It is in effect a denunciation of the system whereby hospitals hire salaried physicians for medical care and bill the patients for this care. Such practice is essentially contrary to the Principles of Medical Ethics of the American Medical Association.

It is recognized, however, that the decision as to the ethical or unethical nature of practice must be based on the ultimate effect for good or ill on the public as a whole. It is admitted that such decision can best be made at the local level because of the various differences which exist in many sections of the country. Therefore the procedures recommended for settlement of questions of unethical conduct of the type under discussion begin at the local level. It is only when a controversy cannot be solved at such levels that the AMA may become concerned. Technics for implementing these principles have been suggested but not adopted. Rather this aspect of the problem has been referred to the Judicial Council of the AMA. On the other hand, it has been affirmed by action of the House of Delegates that "if and when a *physician* is found to be unethical by the proper authorities as established through channels specified in the Constitution and By-laws, and he is still retained on the staff of any hospital approved for resident or intern training by the Council on Medical Education and Hospitals, it shall be the duty of the Judicial Council to request the Council on Medical Education and Hospitals to show cause as to why that Council should not remove such hospital from the approved list under the assumption that the hospital is just as unfit for the training of young physicians for unethical reasons as it is unfit because it may not or does not have proper filing systems for its laboratory or clinical records."

NATIONAL DEFENSE

Activities of the House of Delegates in this field were not numerous. In view of the precarious world situation this might be surprising if it were not known that previous actions by the AMA in connection with national defense have been so vigorous and foresighted that the new emergency which has arisen did not require much special action.* As a matter of fact, the news of our part in the fighting in Korea broke early in the course of the San Francisco Session and the only special action which resulted was a resolution of wholehearted support to the medical services of the armed forces and to the National Security Resources Board. Other important steps which had been planned long before the Korea incident included a recommendation that the National Security Resources Board have a medical advisory committee functioning at top policy level and another strong appeal to the Government for quick action in the establishment of an adequate program for national civil defense.

BLOOD BANKS

Closely allied to the problem of National Defense, the operation of blood banks in the United States has grown at a prodigious rate. In one of the most thorough and lucid reports of the Session, the AMA Committee on Blood Banks reviewed our present position. A special bulletin† issued by the Bureau of Medical Economic Research supplemented the review.

It was announced that at the invitation of the National Security Resources Board, the Board of Trustees of the American Medical Association appointed a member and an alternate member to the

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* J.A.M.A., 1949, **140,** 610, 685, 787, 879; 1949, **141,** 1159, 1239, 1303.

† Bulletin 75. Chicago, Ill.: Bureau of Medical Economic Research of the AMA, 1950.

Technical Advisory Committee on Blood of the Division of Health Resources. The appointees are Dr. L. W. Larson, member, and Dr. Herbert P. Ramsey, alternate member. Dr. Larson is chairman and Dr. Ramsey, a member of the Committee on Blood Banks. The first meeting of the technical advisory committee was held in Washington, D. C., on June 1 and 2, during which there were preliminary discussions of the potential demand for blood in the event of civilian disaster in a national emergency and the resources which could be mobilized.

The recommendations of the Committee on Blood Banks were as follows:

1. That the House of Delegates authorize the Board of Trustees to have a brochure prepared describing the history of the different types of blood banks. This brochure should be made available to physicians, hospitals and community leaders who are considering the establishment of a blood bank in their community.

2. That the House of Delegates authorize the Board of Trustees to have made an annual or biennial survey similar to the survey just completed.

3. That the House of Delegates authorize its Committee on Blood Banks to prepare suitable standards for certification of blood banks and submit same to the House for approval, and that to accomplish this objective the committee be authorized, with the approval of the Board of Trustees, to appoint technical advisers and to solicit the assistance of such organizations as the College of American Pathologists, the American Society of Clinical Pathologists, the American Association of Blood Banks, the National Institutes of Health, the National Research Council, the American National Red Cross, and the American Hospital Association.

4. That the House of Delegates record its approval of the following two principles in the operation of blood banks and blood centers:

(a) Since the only source of human blood is human beings, the responsibility for replacement of blood by the patient, his family, his friends, and the various organizations of which he is a member is asserted by this House of Delegates.

(b) The inter-bank exchange of blood on a unit for unit basis is imperative in order to develop an integrated national system of blood banks and centers.

CHRONIC DISEASE

At the 1949 Washington session of the AMA the House of Delegates authorized a Committee on Chronic Diseases. The Speaker of the House included Dr. Herbert P. Ramsey in this committee.

The committee was directed to (1) be constantly in touch with the United States Public Health Service and all other Government agencies functioning in the chronic disease field and act as liaison between the American Medical Association and the United States Public Health Service; (2) develop and submit to the House a proposed basic public policy in the matter of chronic diseases or any extension of public health function, and (3) report progress to each session of this House.

In preparation for the work of this committee the District of Columbia delegates made some investigation of the activities of various agencies, Government and non-Government, in the field of chronic disease. The information thus obtained was presented to the committee in the meetings held in San Francisco. None of this information was embodied in the report of the committee. Rather, a large part of the report was concerned with a discussion of present-day political methods in Government bureaus. It was your delegates' opinion that the tone of this portion of the report was hardly the method for accomplishing the first directive of the resolution which had created the committee. In spite of Dr. Ramsey's opposition to this portion of the report, it was approved by the majority of the committee and later accepted by the House.

MEDICAL EDUCATION

In this field there were several important actions. Disapproval was expressed of the Association of Internes and Medical Students, and efforts to establish a Student American Medical Association were commended.

A revised form of "Essentials of Approved Residencies and Fellowships" was adopted, and special attention was called by the Reference Committee on Medical Education to the following portions:

> "The particular specialties in which residents are being trained should be represented in the staff by well qualified, experienced and proficient physicians, whether or not they hold membership in special societies and colleges or are certified in their specialty.

> "It is not essential, or even desirable, that all hospital residencies should adopt exactly the same program, or that they should offer a rigidly uniform sequence of experience. It is essential, however, that all hospitals participating in graduate training should be able to meet the fundamental essential requirements for an approved program and either alone or in collaboration should attain comparable results in the quality of training and amount of experience obtained."

Concern about specialty boards was obvious from the number of resolutions and reports dealing with them. There is a continuing interest in limiting the number of such boards and in controlling their influence. A special resolution condemned the practice of certain hospitals making specialty board ratings a requirement for appointment or promotion.

The Reference Committee on Legislation and Public Relations reported on the question of Federal aid to medical education. Disapproval was expressed of Government subsidization of medical schools on the grounds that the Government has the right to control that which it subsidizes and that such control would be detrimental to American Medicine. It is obvious that under existing policies of the AMA, Government aid to medical schools will not be approved unless there is complete insurance against Government control.

LEGISLATION

Aside from items already mentioned, the important steps in this field included announcement of activation of a Coördination Committee on Legislation which functions to facilitate activities on legislative matters and to disseminate legislative information throughout the various states. In addition there was a strong resolution of condemnation for Reorganization Plan 27, a plan to reorganize certain branches of the Federal Government in a manner conflicting with the recommendation of the Hoover Commission.

MISCELLANEOUS

Some other details of the San Francisco session deserve at least passing comment. A new section was again requested, a Section on Military Medicine and Surgery. Search continues for improved methods of providing an expanded national program of voluntary health insurance. In this connection a plan proposed by the Medical Society of New Jersey was analyzed and not accepted.

It was announced that the next meeting of the AMA, which was to have been held in Denver, will take place instead in Cleveland this coming December. As a meeting place for the annual session of June 1953, New York won out over Atlantic City and San Francisco.

HERBERT P. RAMSEY, M.D.
HUGH H. HUSSEY, M.D.

MEETINGS

Monday, Tuesday, Wednesday, October 2, 3 and 4

21st ANNUAL SCIENTIFIC ASSEMBLY

See program elsewhere in this issue.

Wednesday, October 18

PANEL DISCUSSION ON EMERGENCY TREATMENT OF INJURIES

THOMAS BRADLEY, M.D., *Moderator*

Panel participants and subject matter to be presented will be announced.

MEMBERSHIP

The following applicants for membership were duly elected to membership at the meeting of the Executive Board, July 31, 1950, in accord with Amendment XI, Section 2, of the Constitution and By-laws of the Society:

Active Members

Gerhart J. Gordon, Gallinger Municipal Hospital
Avrohm Jacobson, 1514 41st Street, S.E.
George I. Mishtowt, 2026 R Street, N.W.
Robert R. Montgomery, 1746 K Street, N.W.
Timothy F. O'Donovan, 2811 Pennsylvania Avenue, S.E.
Laszlo Ormandy, 1532 16th Street, N.W.
William Stark, 3000 Connecticut Avenue, N.W.

Associate Members

Theodore C. Keller, Armed Forces Institute of Pathology
Harry Kessler, Veterans Administration
Alfred Raymond Lapin, Aquasco, Md.
Edgar L. Marston, 1615 Brisbane Street, Silver Spring, Md.
Norman Oliver, 8901 Colesville Road, Silver Spring, Md.

Hospital Service Agency News

Chest Hospitalization Fund Rationed to Last through 1950

In the fall of 1949, when the public failed by $430,000 to subscribe to the goal set by the Red Feather campaign, it was inevitable that all of the Chest agencies and the Hospitalization Fund would receive a proportionate cut in the allocations that had been estimated as needed for 1950.

The Chest Federation Budget Committee had estimated that $571,314 would be needed for the Hospitalization Fund, but the campaign failure reduced this to $455,459.

In the absence of an agreement between the Federation and the hospitals on a method of disbursing the curtailed Hospitalization Fund, but with the assurance of the Federation that it would furnish enough money to pay the hospitals in full each month "until further notice," HSA continued to certify all nontax-eligible patients who were not able to pay their bills. The Federation later gave notice that, beginning with May, it would limit the funds available each month. This necessitated a curtailment of certifications, beginning in May, thus leaving the hospitals without payment for many patients which, nevertheless, they were obliged to admit.

In approving this plan of curtailment, the hospitals therefore accepted prorating of the funds available for the remainder of the year at the existing contract rates beginning with July 1.

The plan involves reducing the number of days' care which can be provided to a certain number of patient admissions on the basis of the average length of stay, which is 5.6 days for OB cases, and 11.2 days for medical and surgical cases.

The approved plan also calls for distributing the admissions to the various hospitals in the same proportion as in the recent past. The following table shows the number of admissions, number of in-patient days, average length of stay, and percentage of the total HSA case load at each hospital during the period between November 1, 1949, through April 30, 1950.

Adult Hospital Admissions

Hospital	No. of Admissions	Total Days	Average Stay	Per cent of Total
Georgetown	251	3774	15.	15.99
Emergency	156	3257	20.9	13.80
Children's	286	3131	10.9	13.27
Casualty	185	2983	16.1	12.64
Alexandria	292	2495	8.5	10.57
Providence	213	2034	9.6	8.62
Columbia	316	1526	4.9	6.47
Arlington	120	1323	11.	5.61
George Washington	85	1120	13.2	4.75
Prince Georges	81	735	9.1	3.11
Episcopal	73	442	6.1	1.87
Garfield	27	442	16.4	1.87
All others	20	338	16.9	1.43
Totals	2105	23600	11.2	100

Infant Hospital Admissions

Hospital	No. of Admissions	Total Days	Average Stay	Per cent of Total
Columbia	238	1039	4.4	38.34
Alexandria	77	579	7.5	21.37
Providence	50	420	8.4	15.50
Georgetown	58	357	6.2	13.17
George Washington	23	134	5.8	4.94
Prince Georges	16	77	4.8	2.84
Arlington	14	70	5.	2.58
Garfield	4	22	5.5	.81
All others	2	12	6.	.45
Totals	482	2710	5.6	100

The normal HSA case load per month, prior to the curtailment, was 3,993 adult days and 451 infant days. Beginning with July 1 these figures had to be cut to 2,638 adult days and 301 infant days. The above table reveals that 5 hospitals are taking 66.27 per cent of the adult load, and 4 hospitals are taking 88.38 per cent of the infant load from HSA.

Dr. Thistle McKee, President of the HSA Board of Trustees, has returned from a two-month vacation tour of Europe, during which she was honored by a request to read a paper before the International Pediatric Congress at Zurich, Switzerland. During Dr. McKee's absence, her post on the HSA Board was filled by Dr. Oscar B. Hunter, First Vice President.

News and Personals

The Executive Board of the Medical Society of the District of Columbia, at its meeting, July 31, approved plans made by the Committee on Emergency Medical Service of the Washington Metropolitan Area to hold **a lecture course for doctors on the treatment of atomic injuries.** The course will be given at three four-hour sessions on the mornings of September 22, 26 and 29 at the Department of Interior Auditorium. The lectures will be repeated in the evening of the same days for those unable to attend the morning classes.

The sessions will cover medical aspects of atomic bomb injury, biological effect and pathology, diagnosis and treatment of ionizing radiation, and other effects of the bomb, illustrated with films and slides. The lecturers will be personnel of the Office of the Surgeon General of the Army trained in atomic warfare and members of the Medical Society trained in medical aspects of atomic warfare in courses given under the auspices of the National Resources Security Board and the Atomic Energy Commission.

The meetings will be open to members of the District Medical Society and the Medico-Chirurgical Society, the Alexandria City and the Arlington, Prince Georges and Montgomery County medical societies; members of the dental, nursing, pharmaceutical, and veterinarian organizations; and representatives of the Police, Fire, and Health Departments and the American Red Cross.

Dr. A. Clagett Gray is Chairman of the Committee on Emergency Medical Service. Dr. William D. Claudy, Vice Chairman of the Committee, is chairman of the subcommittee arranging the course. Assisting him will be Drs. John B. Ross, Vincent Iovine, Alfred E. Brigulio and Richard Whelton; also Dr. Carl J. Potthoff, first-aid director for the American Red Cross, and Colonel William L. Wilson, special assistant to the Surgeon General in charge of disaster planning.

Calendar of Meetings

July 17	Obstetrical Board
July 18	Executive Committee, Section on General Practice
July 19	Committee on Scientific Programs
July 21	Board of Censors
	Committee on Emergency Medical Service
July 25	Physician-Veterans of World War II
July 28	Grievance Committee
	Committee on Coöperation with D. C. Bar Association
July 31	Executive Board
August 8	Committee on Public Relations
	Medical Officers' Reserve Units
August 9	Committee on Scientific Programs
August 10	Dentist-Veterans of World War II
August 11	Subcommittee on Blood and Blood Derivatives of Committee on Emergency Medical Service

A Medico-Military Symposium for Officers of the Fourth Naval District will be held at the U. S. Naval Hospital in Philadelphia, Penna., from October 23 to 28. The purpose of the symposium is to keep Military Reserve Medical Officers of the Armed Forces—Army, Navy and Air Force—posted on the latest developments of medical science.

Rear Admiral Clifford A. Swanson, Surgeon General of the Navy, will open the meeting with an address on "The Physician as a Naval Officer." Speeches and panel discussions are scheduled in aviation medicine, national defense in case of disaster or attack, national preparedness, psychiatry, submarine medicine, surgery, and orthopedics. Physicians selected to head the panels include Brigadier General James P. Cooney, Chief, Radiology Branch, Division of Military Application, Atomic Energy Commission; Dr. Perrin Long, Professor of Medicine, Johns Hopkins University; Captain John Poppen, M.C., U.S.N.; Captain George Lyons, M.C., U.S.N.; Rear Admiral C. J. Brown, M.C., U.S.N.; Captain C. W. Shilling, M.C., U.S.N.; and Drs. Frank Braceland, Joseph Hughes, Edward Strecker, and Christian J. Lamberton.

Officers are urged to make hotel reservations well in advance, since no Government housing facilities will be available. The final session of the symposium will be held on Saturday morning, October 28, leaving the afternoon free for officers to attend the Penn-Navy football game.

The attendance at this symposium is not restricted to medical officers of the armed forces. All members of the medical profession are cordially invited to attend.

The 36th Clinical Congress of the American College of Surgeons will be held in Boston from October 23 to 27. Twenty-four hospitals in Boston and vicinity will hold operative clinics for the visiting surgeons during the week. **The 29th Annual Hospital Standardization Conference** will convene concurrently with the College of Surgeons, with headquarters at the Hotels Statler and Copley Plaza.

The American College of Physicians announces the following postgraduate courses for the coming months.

September 25–30: Internal Medicine: Selected Subjects. University of Pittsburgh Medical Center and other Pittsburgh medical institutions, Pittsburgh, Pa. Dr. R. R. Snowden, Director.

October 9–14: Physiological Basis of Internal Medicine. Duke University School of Medicine, Durham, N. C. Dr. Eugene A. Stead, Jr., Director.

October 23–27: Critical Problems in Internal Medicine. University of Chicago School of Medicine, Chicago, Ill. Dr. Wright Adams, Director.

October 23–November 3: Clinical Allergy. Roosevelt Hospital Institute of Allergy, New York, N. Y. Dr. Robert A. Cooke, Director.

November 6–11: Recent Developments in Medicine. University of Utah College of Medicine, Salt Lake City, Utah. Dr. Max M. Wintrobe, Director.

November 27–December 2: Peripheral Vascular Diseases including Hypertension. Mayo Clinic and Mayo Foundation, Rochester, Minn. Dr. Walter F. Kvale, Director.

December 4–9: Gastroenterology. University of Pennsylvania Graduate School of Medicine, Philadelphia, Pa. Dr. Henry L. Bockus, Director.

December 11–16: Selected Aspects of Clinical Hematology. New England Center Hospital and Tufts College Medical School, Boston, Mass. Dr. William Dameshek, Director.

January 22–27: Modern Trends in Diagnosis and Treatment of Heart Disease. Woman's Medical College of Pennsylvania and other Philadelphia institutions, Philadelphia, Pa. Dr. William G. Leaman, Jr., Director.

Fees for the course are $30.00 per week to members of the College and $60.00 per week to nonmembers. All registrations must be made through the Executive Offices of the College, 4200 Pine Street, Philadelphia 4, Penna. Dr. E. R. Loveland, Executive Secretary, will be glad to send a bulletin of the courses upon request.

The Fifteenth Annual Assembly of the United States Chapter of the International College of Surgeons will convene in Cleveland, Ohio, October 31 to November 3, with headquarters at the Cleveland Hotel. Surgical clinics will be held in several Cleveland hospitals on Monday, October 30. The Cleveland Public Auditorium will be used for all scientific sessions.

At the annual banquet at the Hotel Statler on Thursday evening, Dr. Frank Lahey, of Boston, will speak on "Some of the Recent Advances in Surgery." Dr. Elmer Henderson, President of the AMA, will deliver an address on "The Importance of International Coöperation in Surgery."

Hotel reservations may be secured by writing to the Committee on Hotels, International College of Surgeons, 511 Terminal Tower, Cleveland 13, Ohio. Preliminary programs may be obtained from the central office, 1516 Lake Shore Drive, Chicago 10, Ill.

St. Louis has been selected for the **Forty-fourth Annual Meeting of the Southern Medical Association,** November 13–16. The first two days will be devoted to four general clinical sessions covering the whole field of medicine, each session followed by a question and answer period. Wednesday and Thursday will be given over to section meetings. Thirty-two sessions will be held covering every phase of medicine.

All meetings and scientific and technical exhibits will be held in the Kiel Municipal Auditorium. For hotel accommodations address the Housing Bureau, Southern Medical Association, 911 Locust Street, Room 406, St. Louis 1, Mo. Physicians will be given the hotel of their choice so long as that hotel has available the kind and price of accommodations desired.

The Southern Chapter of the American College of Chest Physicians will hold its seventh annual meeting, November 12 and 13, in conjunction with the annual meeting of the Southern Medical Association. The Hotel Statler will be headquarters for the College. President Waterman advises members that unusual films, diagnosed or not, are acceptable for the X-ray Conference. They should notify Dr. Alfred Goldman, 634 North Grand Avenue, St. Louis, Mo., of the number of films they wish to present.

The National Gastroenterological Association announces that its course in Postgraduate Gastroenterology will be given at the Hotel Statler in New York City, October 12, 13 and 14. The course will again be under the personal direction of Dr. Owen H. Wangensteen, Professor of Surgery, University of Minnesota School of Medicine. The faculty for the course has been chosen from medical schools in New York City and from other cities. For further information and enrollment blanks physicians may write to the National Gastroenterological Association, Department GSJ, 1819 Broadway, New York 23, N. Y.

The American Roentgen Ray Society will hold its 50th anniversary meeting in St. Louis, September 26–29. The scientific sessions and the scientific and commercial exhibits will be held in the Hotel Jefferson. The Caldwell Lecture will be delivered on Wednesday, September 27, by Dr. Henry L. Bockus, Professor and Chairman of the Department of Internal Medicine in the Graduate School of Medicine, University of Pennsylvania. His subject will be "The Role of Roentgenology in Gastroenterology."

The American Urological Association offers an annual award of $1,000 (first prize $500, second prize $300, and third prize $200) for essays on the result of some clinical or laboratory research in urology. Competition shall be limited to urologists who have been in such specific practice for not more than five years and to men in training to become urologists. The first prize essay will appear on the program of the forthcoming meeting of the American Urological Association, to be held at the Palmer House in Chicago, May 21–24, 1951. Essays must be in the hands of the Secretary, Dr. Charles H. deT. Shivers, Boardwalk National Arcade Building, Atlantic City, N. J., before February 10, 1951.

Dr. Howard B. Sprague, President of the American Heart Association, announces that applications for research grants-in-aid, including grants to basic sciences, may be filed up to December 15, 1950. These grants-in-aid are available to nonprofit institutions possessing the requisite basic facilities for research and having the necessary experienced investigators on their staffs. They are designated for a specified program of research.

Dr. Sprague estimates that more than $1,000,000, or over 25 per cent of the $4,000,000 raised nationally during the 1950 Heart Campaign, will have been allotted this year to research support of all kinds by the American Heart Association and its affiliates. Of this total, $450,000 represents funds of the national Association, with the additional $550,000 allocated by its affiliates.

Information and application forms for grants may be obtained from Dr. Charles A. R. Connor, Medical Director, American Heart Association, 1775 Broadway, New York 19, N. Y. In Washington, D. C., Dr. John A. Reisinger, Chairman of the Research Committee of the Washington Heart Association, will be glad to supply forms and additional information.

A thought-provoking pamphlet, in "comic book" form, called **"The Sad Case of Waiting-room Willie,"** has just been published by the **Committee on Public Medical Education of the Baltimore City Medical Society.** It is a visual dramatization, in color, of the unfavorable aspects of socialized medicine in a form that is readable, entertaining and non-technical enough to reach all voters. What happens to Willie, who is really sick and unable to get medical care under the New Utopia because the doctors he tries to consult are overrun with un-sick patients who have also paid their health taxes and have an equal right "under the law" to take up the doctors' time, is a collection of incidents, most of them from factual reports of occurrences under socialized plans in other countries.

A copy of the booklet is available for inspection in the Medical Society's office; copies may be purchased in lots of 1,000 or more, at cost, 3 cents each, from the Baltimore City Medical Society, 1211 Cathedral Street, Baltimore 1, Md., attention: G. R. Connolly, Publicity Director.

The Women's Medical Society of the District of Columbia announces the election of the following officers for 1950–51:

Dr. Elizabeth Kahler, *President;* Dr. Dorothy Holmes, *Vice President;* Dr. Eloise Kailin, *Recording Secretary;* Dr. Dorothy Donley Dowd, *Corresponding Secretary;* and Dr. Mary K. L. Sartwell, *Treasurer.*

Dr. Helen Gladys Kain, Delegate to the American Medical Women's Association, attended the Association's meeting in San Francisco in June.

Dr. Walter L. Kline, of Chevy Chase, Md., an Associate member of the District Medical Society, was the first physician to volunteer for Army duty since the current Army Medical Department call for doctors. A Major during World War II, Dr. Kline received the Legion of Merit for his service in the Philippine Islands. His final assignment before release from active service was in Japan.

General Bliss urges physicians available for duty to write or wire him at the Department of the Army, Washington 25, D. C. The Office of Medical Services, Department of Defense, also requests that physicians available for service with the Navy or Air Force should contact the Surgeon General of the service with which they desire to serve.

Captain Bartholomew W. Hogan, M.C., U.S.N., assumed command of the **Naval Medical School** at the National Naval Medical Center in Bethesda, Md., July 28. Captain Hogan was Commanding Officer of the Naval Hospital, Mare Island, California, prior to assuming his new command. During World War II he was awarded the Silver Star and the Navy and Marine Corps Medal for conspicuous gallantry while serving as senior medical officer aboard the *U.S.S. Wasp*, which was torpedoed, September 12, 1942. From 1947 to 1949 he was Acting Commanding Officer and Executive Officer of the Bethesda Naval Hospital. He is a graduate (1925) of the Tufts College Medical School.

Dr. J. Alexander VanHeuven, Assistant Clinical Professor of Ophthalmology at Yale University, is Acting Chief of the Ophthalmological Service at George Washington University during the absence of Dr. Ronald Cox, Professor of Ophthalmology. Dr. Cox is representing the University at the 16th International Congress of Ophthalmology now meeting in London.

Dr. VanHeuven received his medical training at the University of Utrecht in The Netherlands. In 1925 he was appointed Instructor in Ophthalmology at Utrecht University; he came to the United States in 1947 to accept his present staff position at Yale University.

Dr. Arthur C. Christie was made an Honorary Fellow of the British Faculty of Radiologists on July 25, 1950, during the meeting of the Sixth International Congress of Radiology in London. This is the "highest distinction which the Faculty can confer, the roll of Honorary Fellows being limited to twenty in number." At the present time there are only six. Because of illness Dr. Christie was unable to attend the meeting.

Drs. John B. Ross and Oscar B. Hunter, Jr., presented a paper before the recent meeting of the International Congress of Hematologists in Cambridge, England, on "Exchange Transfusions; an Evaluation of the First 100 Cases." They also presented an exhibit at this meeting.

Dr. Arthur E. Cliff was appointed Acting Assistant District Health Officer, August 4, by the District Commissioners. This is the position formerly held by Dr. Daniel L. Seckinger before he was promoted to District Health Officer.

Dr. Cliff has served as Assistant Director of the Health Department's Medical Inspection Service in the public schools. He is a graduate of George Washington University School of Medicine and an Active member of the District Medical Society. He served for six years in the Army Medical Corps during World War II and holds a reserve commission of Lieutenant Colonel.

Dr. Robert H. Barter has been promoted to a full-time position as Associate Professor of Obstetrics and Gynecology of George Washington University School of Medicine. He was formerly on the staff as Adjunct Clinical Professor in the same department.

Dr. Walter Freeman, Professor of Neurology of George Washington University School of Medicine and immediate Past President of the Medical Society of the District of Columbia, has been chosen to deliver one of the major addresses before the International Congress of Psychiatry, which is meeting in Paris, France, from September 18 to 27. The subject of Dr. Freeman's address will be "Cerebral Anatomy and Physiology in the Light of Lobotomies and Topectomies."

Mr. Joseph W. Leverenz has been appointed Executive Director of the **District of Columbia Division of the American Cancer Society,** succeeding Dr. George C. Ruhland, who resigned on May 1. Mr. Leverenz assumed his new duties on August 1.

Mr. Leverenz is a graduate in arts from North Central College, Naperville, Illinois, and received his Master of Arts degree from Western Reserve University, Cleveland. He served with the Cuyahoga County Juvenile Court and the Cuyahoga County Child Welfare Agency in Cleveland prior to 1938, when he affiliated with the headquarters staff of the American Red Cross.

In a recent letter to the Secretary of the Medical Society, **Dr. Jeter C. Bradley,** who is practicing medicine in Weaverville, North Carolina, relates some of his current community activities. He is President of the Lions Club of Weaverville and is on the Board of Directors of the Community Chest of Asheville, N. C., including Buncombe County. He has also been appointed Consultant in Ear, Nose and Throat for the Health Department of Madison County and since January has operated upon nearly 100 children from that county.

Dr. O. Anderson Engh, Medical Director of the Anderson Orthopedic Hospital and Clinic in Arlington, Va., was one of the speakers during the Fifth Biennial Convention of the American Federation of the Physically Handicapped at the Hotel Statler, August 28–30. The topic of his address was "The Role of the Physician in Total Rehabilitation of the Handicapped Patient."

Dr. Julius Schreiber addressed the Northern Virginia Mental Hygiene Society, May 25, on "Mental Health and the Social Environment."

Dr. Sylvan A. Steiner was recently appointed Medical Consultant to the District's Alcoholic Rehabilitation Clinic, which is directed by Dr. Leopold Wexberg.

Dr. Robert H. Harmon, Director of the George Washington University Glee Club, accompanied Club members on a 21-day tour, which was made in a Military Air Transport Service plane, to military and naval bases in the Pacific. The Club presented concerts in Hawaii, Johnston Island, Kwajalein, Guam, the Philippines, Okinawa and Tokyo.

Dr. Edward J. Stieglitz was one of the speakers at the national Conference on Aging, which was held at the Shoreham Hotel, August 14 and 15. The Conference was called by Federal Security Administrator Oscar R. Ewing.

Dr. Peter D. Comanduras was invited to address the Lycoming County Medical Society in Williamsport, Pa., July 14. The subject of the paper he read before the Society was "Clinical and X-ray Problems in Gastrointestinal Disease."

Dr. George Maksim attended the Sixth International Congress of Pediatrics which was held in Zurich, Switzerland, July 22–29.

The United States Book Exchange, Inc., successor to the American Book Center for War-devastated Libraries, has expressed appreciation to the Medical Society for its recent contribution of medical journals. The letter states: "Your gifts will be added to our pool of materials which go overseas, either as outright gifts or through our free exchange service, to those institutions which are seeking to reëstablish their working routines through resumption of the exchanges interrupted by the War." The Book Exchange is located in the Library of Congress Building, Washington 25, D. C.

LEON STUART GORDON, M.D., A.B., A.M., Ph.D., F.A.C.P.

(1904–1950)

Dr. Leon Stuart Gordon, aptly described as "the big, genial, kindhearted Boys' Club physician," died July 24, 1950, at Emergency Hospital following a cerebral hemorrhage in his home at the Alban Towers, 3700 Massachusetts Avenue, N.W. As Medical Examiner for the District Boxing Commission since its organization and as medical staff chief for the Metropolitan Police Boys' Club since it was founded 14 years ago, Dr. Gordon had become one of the city's best known physicians. His office was located at 915–19th Street, N.W.

Dr. Gordon was born in Baltimore, Md., August 4, 1904, the son of Solvin W. and Freda Weiss Gordon. He had lived in Washington since his childhood and attended Jefferson Junior High School and Business High School. He received his medical degree with distinction from George Washington University School of Medicine in 1928, and interned at Emergency Hospital, 1928–29. In 1929 he received his A.B. degree, in 1930 his A.M. degree, and in 1932 the degree of Doctor of Philosophy, all from George Washington University. He continued his education with postgraduate work in internal medicine at the University of Pennsylvania Graduate School of Medicine.

He was Instructor in Bacteriology and Pathology at his Alma Mater from 1929 to 1930, and Assistant Professor of Pathology from 1930–32. During the same period, 1929–32, he was visiting pathologist at Sibley, George Washington and Gallinger Municipal Hospitals. During these years he made an important contribution to the field of medicine through his studies on intra-cranial hemorrhage of the newborn.

His father, a retired merchant, preceded him in death by 12 days. He had been a former fleet boxing champion and interested his son in boxing. Dr. Gordon was one of the District Boxing Commission's examining and ringside physicians and attended most of the fights in his official capacity. He also attended boxing events in other Eastern cities and was well known in Baltimore, Philadelphia and New York. He was a constant campaigner for better care for injured fighters and some of the rules he insisted on following have become a part of boxing regulations.

He was particularly interested in underprivileged boys. Since the Boys' Club Camp Ernest W. Brown at Scotland, Md., was organized in 1934, Dr. Gordon had examined every one of the thousands of youths who went there. He was its first physician and chairman of the Medical Committee from that time until his death.

Dr. Gordon had been an Active member of the Medical Society of the District of Columbia since 1930. He was a Fellow of the American Medical Association and the American College of Physicians; a diplomate of the American Board of Internal Medicine; and member and Past President of the Jacobi Medical Society. He was a Fellow of the American Geographical Society; a charter member of Phi Delta Epsilon Fraternity; and an honorary member of Sigma Chi. He belonged to the Amity and Alumni Clubs as well as the Indian Spring Country Club. He was a 32nd degree Mason and a Shriner. He was a Board member of the First Federal Savings and Loan Association and the Realty Title Insurance Company.

Surviving are two children, Suzanne Joy and John Everett Gordon, of Miami Beach, Fla.; his mother, Mrs. Freda Gordon, with whom he resided; and two brothers, Drs. David S. Gordon and Everett J. Gordon, both members of the District Medical Society.

Anxiety—Cohen

(Continued from page 484)

facing an audience. He looks at their penetrating, critical eyes and fears they recognize him for the blow-hard he is. He tells his joke, they laugh, and instantly the situation changes; his anxiety vanishes, and fearlessly he launches into his speech. In therapy, a similar situation often arises. A competent professional man is under treatment. One day he comes to the office quite disturbed. He moves about restlessly in his chair, starts to smoke and stops, starts to talk and stops, and finally in despair says he just can't tell the therapist what is on his mind lest he reveal how low and despicable he is. By this time the physician has steeled himself to hear that at the very least his patient has committed rape or has joined the Communist party; and then the patient in obvious despair confesses that he eats his own dandruff. This is such an anticlimax that the therapist makes a remark to the effect that some of his best friends do that, the anxiety disappears, and its real source is not revealed, nor is another similar opportunity to be offered for many days to come. If the audience had remained quiet they might have destroyed the speaker; but if the therapist had done so he might have come closer to an important problem.

I do not imply by this that the patient was telling a joke, but he did unconsciously set up a situation in which the expected and somewhat reassuring response from the other person served to diminish the anxiety. Although his statement was true, the impulse which provoked the anxiety was kept out of awareness by a defense maneuver, namely, the communication of an embarrassing statement.

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Cholecystocolic Fistula—Castro, Ault and Smith

(*Continued from page 498*)

Conclusions

1. Cholecystocolic fistula is rare. Complete obstruction of the colon by a gallstone is also rare. A case is presented with both of these findings.

2. The roentgen demonstration of air in the biliary tree may indicate that an abnormal communication exists between the bile passages and the gastrointestinal system.

3. The roentgen demonstration of barium in the biliary tree following a barium enema is conclusive evidence of a cholecystocolic fistula.

4. Gallstone obstruction should be kept in mind in all cases of obstruction and should be strongly suspected in cases in which the etiology is not easily demonstrated by the usual methods of examination.

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Albert F. A. King—Daniels

(*Continued from page 505*)

tribution of the spermatozoa in households. They were distributed from attic to cellar, he said, and especially lined the bathtubs. After the lady of the house, for example, completed her bath in the morning and was quite dry, the spermatozoa were still spread over her from head to foot.

Several years before that discussion and soon after Dr. Howard Kelly published his work on appendicitis, Dr. King submitted his idea concerning the cause of that disease. He maintained that the increase in the number of cases was due to the riding of bicycles, a very common practice at that time.

These are but examples of the less accurate theories of a man of great originality and genius. Far from detracting from his stature, they illustrate the fertility of his mind and are characteristic of eminent discoverers.

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THE USE OF ENDOCRINES IN GYNECOLOGY*

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THE advances in our knowledge of the physiology of the genital organs during the last two decades have resulted in the availability of clinically useful preparations of hormones which may be employed in gynecology. These, exclusive of desiccated thyroid substance, are the ovarian steroids, estrogen and progesterone, the testicular steroid, androgen, and the gonadotropins. When any endocrine substance is first employed clinically, there is usually an understandable overenthusiasm in its application. The rational indications, however, generally contract measurably following the earlier empiric trials. Usually, however, much confusion persists concerning proper dosage and the avoidance of undesirable side actions. This paper deals with the authors' current concepts of the clinical usage of the hormones mentioned. The well established uses of desiccated thyroid substance will be omitted from this discussion.

PREREQUISITES OF ENDOCRINE THERAPY

It is necessary to observe certain cardinal principles prior to the administration of any endocrine substance. It seems important to reemphasize at least 3 of these basic maxims.

1. *Selection of patients.* In choosing patients with functional disturbances of menstruation for treatment, the physician should recall the fact that such a disorder is usually a symptom of some underlying condition. However, in the presence of excessive bleeding, treatment of the symptom, uterine bleeding, may be necessary prior to pursuing the matter further. On the other hand, women with amenorrhea often require no treatment. Many factors must be considered in the treatment of such disorders, factors which may be local and organic, or constitutional and systemic, or of a specific endocrine character.

Antecedent to the prescription of any endocrine substance, a complete survey of the whole patient must be made to exclude the presence of any disorder which would preclude the use of the substance in question. The ordinary diagnostic procedures, including complete physical examination, blood count, urinalysis, serologic examination, biologic tests for pregnancy, and determination of the basal metabolic rate, should be employed as indicated. As an example, one may cite the absolute necessity of carefully examining the breasts and genital organs of any menopausal woman prior to the prescription of estrogen.

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* Kellogg Lecture presented, March 28, 1950, during the Fifth Intensive Postgraduate Course of George Washington University School of Medicine.

Of equal importance in selecting patients for treatment is the realization that no two patients ever present precisely the same endocrinologic problem. The value of such individualization is clearly emphasized by the varied treatment accorded the same disorder at different ages. Moreover, treatment not only must be directed to the major complaint, but it must also be so administered that associated derangements are aided. Whenever necessary, advice relevant to better living habits and to the solution of unsolved social problems should be proffered. Finally, adjuvant medication, such as iron and dietotherapy, should not be overlooked.

2. *Evaluation of the menstrual physiology.* The absolute control of the menstrual cycle by the hormones under discussion makes it imperative for the physician to have some knowledge of the patient's menstrual physiology before he administers any of them. Despite the fact that most physicians have some understanding of the current concept of menstrual physiology, and at the risk of being somewhat pedantic, a brief review of our current working hypothesis is presented.

The cyclic ovarian changes are governed by the follicle-stimulating, luteinizing, and luteotrophic hormones of the anterior lobe of the hypophysis. These are responsible for the maturation of follicles, ovulation, luteinization, and the maintenance of the corpus luteum. The recurring changes in the endometrium are, in turn, dependent on the hormones, estrogen and progesterone, secreted respectively by the ovarian follicles and the corpus luteum.

At the conclusion of the menstrual flow, responding to the presence of estrogen, the endometrium changes from a thin layer of cells practically devoid of glands to a tall, richly glandular tissue. After the ripening of one follicle in the midst of a host of others destined to become atretic but temporarily producing estrogen, ovulation occurs during the midportion of the cycle. Luteinizing gonadotropin must be responsible for its timely occurrence. The empty follicle collapses and is transformed within a few days into a corpus luteum. The luteotrophic gonadotropin supports the continued function of the corpus luteum, stimulating the production of both estrogen and progesterone for a limited time.

During the second half of the cycle progesterone causes the estrogen-primed endometrium to become a hyperemic, highly functional tissue. The cells of the endometrial glands are, at this time, richly endowed with the nutritive substances necessary for the embedment and support of a fertilized ovum. If fertilization does not occur, the corpus luteum disintegrates because of failure to receive the support of trophoblastic luteotrophin. Almost immediately thereafter, the endometrium, so earnestly constructed to house a pregnancy, suffers from the withdrawal of the corpus luteum steroids and is dismantled by the process of menstruation.

3. *Application of pharmacologic principles.* There are very important pharmacologic differences between the gonadotropins and the steroid hormones. The gonadotropic substances produced by the pituitary gland have been isolated in fairly pure chemical forms, but none has been actually identified beyond the fact that all seem to be complex proteins of high molecular weight. Moreover, the pituitary itself stores very little of gonadotropin, and consequently yields very little on extraction. Even that little is fairly unstable. This means really that there is not a good hypophyseal gonadotropin available for clinical use. For therapy, we must depend on extrapituitary sources of gonadotropic substances, namely, equine and chorionic.

The testicular and ovarian hormones belong to the steroid family, a group which also includes the adrenocortical hormones. The gonadal steroids, in contradistinction to gonadotropins, have been chemically identified. Their structural formulas are known, they are available in pure crystalline forms, and they have been made synthetically. They are stable and will remain potent indefinitely without refrigeration. Inasmuch as they contain no protein, they do not give rise to allergic manifestations, but they are frequently dispensed in vegetable oils which have been known to evoke sensitization. They may be administered intramuscularly, orally, and by absorption through the skin or mucous membrane. They have the significant dual ability of acting both on the genital end-organs and, in a reciprocal manner, on the anterior lobe of the hypophysis. The latter propensity, especially true of estrogen, has bearing in its use in the regularly menstruating woman, because it may disturb the rhythm of her cycle by depressing the production of hypophyseal gonadotropins.

GONADOTROPINS

Pituitary gonadotropin. The gonadotropic substances available by extraction of animal pituitary glands are inadequately prepared for clinical usage. However, they may be employed in combination with equine or pregnant mare serum gonadotropin, particularly when a follicle-stimulating effect is desired. Such synergistic combinations are logical when there is a deficiency or irregular production of pituitary gonadotropins, which might result in amenorrhea and associated sterility. We have little success with such therapy and do not recommend it except in carefully selected patients.

Equine gonadotropin. This substance, available by extraction from the serum of the pregnant mare, has a follicle-stimulating effect in the human female. Being of equine origin, it is obviously a foreign protein and, as such, will give rise to foreign protein effects, one of which is the formation of antigonadotropins. It has some field of application, particularly when used in combination with the other available gonadotropins, as suggested previously. A popular form of such therapy is the serial employment of equine gonadotropin and chorionic gonadotropin in the treatment of pituitary amenorrhea. The dose recommended is 1,500 I.U. of equine gonadotropin intramuscularly daily for 5 days followed by a similar quantity of chorionic gonadotropin injected every other day for 10 doses. Such therapy has no value whatsoever in primary ovarian amenorrhea. When employed in the treatment of functional uterine bleeding, equine gonadotropin should be given in cyclic fashion during the first 2 weeks of the menstrual cycle but never continuously.

Chorionic gonadotropin. This substance must be distinguished from both pituitary and equine gonadotropin because of biologic and chemical differences. It is available commercially from pregnancy urine and extracts of placenta. Experimentally, it cannot be substituted for pituitary gonadotropin because of its failure to support the gonads in hypophysectomized animals. It is the substance responsible for the biologic test of pregnancy, being produced by the earliest trophoblastic cells and appearing in the urine soon after implantation of the fertilized ovum. Its rate of production and level of excretion rises rapidly until about the tenth week of pregnancy, when a gradual but steady fall takes place until the fourteenth week of pregnancy. Thereafter the rate of production and level of excretion remain relatively constant until parturition.[1] The apparent function of chorionic gonadotropin, which has been shown to be luteotrophic in the human,[2] is to support the corpus luteum of pregnancy until the placenta assumes its role of producing progesterone.

There is a marked fall in the urinary level of chorionic gonadotropin in most instances of threatening spontaneous abortion.[3] A progressively lower level during the early weeks of gestation, while not incompatible with the continuance of pregnancy, indicates a deficiency of trophoblastic function, and suggests that the conceptus itself is pathologic. A weakly positive biologic pregnancy test at any time during pregnancy indicates a deficient production of chorionic gonadotropin, possibly still in the remediable stage. Therefore, the prophylactic administration of chorionic gonadotropin during early pregnancy in habitual aborters, in the hope of evoking an increased production of progesterone, which in turn promotes the formation of decidua, is indicated when assays reveal a deficiency. However, the minimum dosage, as shown by the studies of Brown and Bradbury,[2] must be from 5,000 to 10,000 I.U. every other day. Such therapy should be continued through the sixteenth week of gestation.

ESTROGEN

THE USES OF ESTROGEN

The physiologic effects of estrogen make it clinically useful in 3 broad categories, namely, to achieve growth of all or part of the genital tract, to depress temporarily the function of the anterior lobe of the hypophysis, and to counteract an androgenic effect. In the first instance are included the treatment of atrophic vaginitis and the adjunctive therapy of amenorrhea; in the second, the suppression of lactation and the alleviation of the menopausal syndrome; and, in the third group, the temporary resolution of the metastatic lesions of prostatic carcinoma[4] and the restraint of postoperative erections following penile plastic operations.[5] The last-named do not constitute gynecologic problems and will not be discussed.

Atrophic vaginitis. Postmenopausal vaginitis occurs because of the extreme vulnerability of the atrophic vaginal mucosa to trauma and infection. The dosage of estrogen employed to remedy this situation should be small, inasmuch as the vagina responds to minimal quantities. It may be given effectively orally as either 0.5 mg. of diethystilbestrol or 0.625 mg. of estrone sulfate daily for several weeks. Given intravaginally in a cream base, smaller quantities of estrogen may be employed.

Secondary amenorrhea. The causes of secondary amenorrhea are so protean that intelligent therapy cannot be applied without a complete investigation of the constitutional background of each amenorrheal woman. Estrogen therapy of secondary amenorrhea is notoriously unsatisfactory because estrogen evokes only the proliferative phase of endometrial growth. Although uterine bleeding may result from such growth, it is not menstruation.

The objective of estrogen therapy in amenorrhea is the cure of uterine hypoplasia. If such atrophy, perhaps the sequel of a previously existing pituitary-ovarian deficiency, is the sole cause of the amenorrhea, fair results may be obtained from treatment with estrogen. In such women, the endometrium is rebuilt to a point of normal responsiveness, and, in effect, the estrogen acts merely as the "starter" which sets the abeyant cycle in motion. Unfortunately, this applies to few amenorrheal women.

An effective technic of employing estrogen in the treatment of amenorrhea is its administration with the corpus luteum hormone, progesterone. They may be given either together, as a combined injection, or separately in consecutive manner. In the former method, the amenorrheal patient may be given a combined intramuscular injection of 2.5 mg. of estradiol benzoate and 12.5 mg. of progesterone on 2 successive days. Using the consecutive style, one may administer 1.5 mg. of estradiol benzoate intramuscularly every third day for 5 doses and follow immediately with 5 daily injections of 10 mg. of progesterone. Such dual therapy, combined or cyclic, is generally repeated for 3 consecutive months.

When parenteral medication is to be avoided, estrogen and progesterone may be administered orally. A suitable schedule, for example, is the use of 2 mg. of diethylstilbestrol daily for 15 days, followed by 60 mg. of pregneninolone, the "oral progestin," daily for 5 days.

It must be remembered that neither estrogen alone nor estrogen with progesterone gives permanent results in amenorrhea unless other measures are taken simultaneously to restore the general health of the patient.

The postpartum inhibition of lactation. One of the most satisfactory uses of estrogen is the prevention of breast engorgement when it is desired to inhibit lactation in the puerperal woman. If the administration of estrogen is started immediately after delivery, there is generally entire freedom from pain and engorgement, as well as a distinct depression of lactation. In fact, when suckling is not permitted, lactation in the clinical sense rarely occurs. If the administration of estrogen is started after lactation has been established, relief from engorgement and subsidence of lactation are hastened.

The dosage of estrogen required to prevent puerperal breast engorgement is relatively small. Intramuscular administration for this purpose is not required. As little as 1 mg. of diethylstilbestrol, or its equivalent in natural estrogen (such as 1.25 mg. of estrone sulfate), given orally 3 times daily for a week is adequate. The estrogen is then best withdrawn gradually by a reduction of 1 dose daily for several days.

The danger of administering estrogen during the puerperium is its propensity to create hyperplasia of the regenerating endometrium, which may result in abnormal bleeding. This unwanted effect may be avoided by employing only small doses of estrogen for a limited period and by discontinuing its use gradually.

Menopausal syndrome. Most women do not require treatment for the menopausal syndrome. In this majority group, the flushes, nocturnal sweats, and nervous instability are mild and may be completely mitigated by consultation alone. An explanation of the temporary nature of the symptoms and of their tendency to disappear spontaneously after a variable time, coupled with the sympathetic prescription of a mild sedative, may be all that the patient requires. However, when the symptoms are troublesome, there is no more specific therapy than estrogen.

The orally administered estrogens are ideal for menopausal therapy; there is virtually no need for parenteral administration. The smallest oral dose required to assuage the vasomotor symptoms should be prescribed. Whether one employs a daily dose of 0.5 mg. of diethylstilbestrol, 0.625 mg. of estrone sulfate, or 0.02 mg. of ethinyl estradiol is immaterial. The important rules are to prescribe the estrogen for a limited period and to withdraw it in a gradual manner. The most prevalent abuse in the usage of estrogen is the prescription of a routine daily dose to be taken more or less indefinitely. This often results, even in women in whom menstruation has long since ceased, in the occurrence of uterine bleeding. Such bleeding also frequently follows sudden withdrawal of the estrogen. It must be emphasized that the objective of estrogen therapy of the menopausal syndrome is to aid the patient's adjustment to the diminution and cessation of ovarian function. This logical aim is lost if the estrogen is not prescribed for measured periods, with repeated attempts to withdraw the hormone entirely. When the latter is accomplished gradually, withdrawal bleeding is generally avoided.

The unfortunate faculty of estrogen of inducing uterine bleeding in the postmenopausal woman is indirectly responsible for many instances of neglected carcinoma of the uterus. The physician faced with postmenopausal bleeding may unfortunately lapse into a false state of security, tending, without proper examination of the patient, to attribute the bleeding to previously administered estrogen. The natural and proper suspicion in all cases of postmenopausal uterine bleeding should be carcinoma of the uterus, and the attending physician should be impelled to inspect the cervix (executing a biopsy if indicated) and to perform diagnostic curettage.

ABUSES OF ESTROGEN

There are several prevalent abuses in the clinical application of estrogen, some of which are potentially dangerous. In addition to the thoughtlessness of failing to limit the duration of treatment with estrogen, physicians often overlook certain contraindications to its use. Estrogen therapy, we believe, should be avoided in the following circumstances.

Premenopausal menstrual irregularity. Estrogens are ill advised in the woman approaching the menopause who has vasomotor symptoms but who also exhibits irregular menstruation. Under such circumstances, estrogen may result in even more irregular bleeding and may also prolong the climacteric adjustment. The danger of confusing estrogen-evoked bleeding with metrorrhagia of more serious origin is obvious.

Residual endometriosis. Estrogen is contraindicated in women who have castration symptoms after the removal of both ovaries because of endometriosis. Receded endometrial lesions may be reactivated by the administration of estrogen, the resulting symptoms depending entirely on the site of the resurgent tissue. The recommendation of Karnaky[6] to the effect that huge doses of stilbestrol are beneficial in the eradication of foci of endometriosis, a recommendation supported recently by the observations of Bickers,[7] has not yet been sufficiently corroborated to merit widespread application.

Carcinoma background. The impression has been created that estrogen is carcinogenic, particularly in regard to carcinoma of the breasts and uterus. This implication arose from the induction of cancer in experimental animals. In such experimentation, either cancer-susceptible strains or huge dosages of estrogen were employed. Even though it is generally agreed that estrogen itself is not carcinogenic, it cannot be denied that it is a stimulant to growth of the breasts and uterus, the most frequent sites of carcinoma in the female. There is also no doubt that estrogen will accelerate the rate of growth of an existing carcinoma of either the uterus or the breast, as well as of any metastasis derived therefrom. If there is, then, a definite history of multiple instances of either mammary or uterine cancer in a patient's family, it is safer not to administer estrogen to that patient. It is an obvious corollary that estrogen is also contraindicated if the patient herself is a salvaged survivor of malignant neoplasia.

Palpable benign tumors. The mammary ducts and the connective tissue around them are stimulated to growth by estrogen. It should not, therefore, be administered for any reason to a patient who has, or who has recently had excised, a fibroadenoma of the breast.

The presence of a palpable uterine fibromyoma constitutes a similar contraindication to the use of estrogen.

Hepatic insufficiency. It is well established that the integrity of the liver is important to the normal metabolic fate of the steroid hormones, including estrogen. It is conceivable that severe hepatitis may temporarily result in hepatic decompensation sufficient to cause failure of estrogen inactivation. Therefore, it seems wiser, at least until further investigation clarifies the problem, to avoid the use of estrogen in patients giving a history of recent hepatitis.

PROGESTERONE

Sufficient time has not yet elapsed since the introduction of potent preparations of progesterone to warrant definite opinions concerning its therapeutic effectiveness. At the present time, based on animal experiments and some human observations, progesterone is chiefly valuable in the treatment of threatened and habitual abortion, and in the management of some types of amenorrhea. Narrower, perhaps less reliable fields of application include premenstrual tension, certain painful conditions of the breast, and anovulatory sterility. Its usefulness in several of these applications may be summarized as follows.

Threatened and habitual abortion. Progesterone, initially produced by the corpus luteum and later by the placenta, is essential for proper implantation of the fertilized ovum, as well as for the maintenance of healthy decidua throughout gestation. The time at which the placenta takes over the production of progesterone varies in different women, thereby accounting for the inconstancy with which abortion occurs following excision of the corpus luteum in the first months of gestation.

During the first 10 weeks of pregnancy the production and excretion of progesterone, as determined by the quantity of sodium pregnandiol glucuronide excreted in the urine, is maintained at the same rate as in the second half of the menstrual cycle. From then on, until 24 or 48 hours before the onset of labor, there is a gradual but steady increase in the excretion of pregnandiol, the maximum varying from 60 to 105 mg. daily. An inadequate production of progesterone by the corpus luteum, as reflected by a low pregnandiol excretion (less than 5 mg. per 24 hours), may not prevent embedment of the ovum, but it may nevertheless inhibit its proper development and eventuate in abortion. In the opinion of Bishop,[8] premature regression of the corpus luteum is the principal basis of habitual abortion without apparent cause. However, such a deficiency cannot be demonstrated by assays of pregnandiol in more than a third of patients threatening to abort.[3, 9, 10] By employing their qualitative pregnandiol precipitation test, Mack et al[11] were able to demonstrate no excretion in 53 of 149 patients threatening to abort and to report subsequent abortion in 51 of the 53. From their data it seems evident that a negative pregnandiol precipitation test in pregnancy is almost pathognomonic of subsequent abortion. We have had no experience with the Mack test but do believe that the administration of progesterone is certainly desirable whenever a deficiency in its production is implied by a low pregnandiol excretion. Unfortunately, such facilities of assay are not always available. When this is the case, there is no harm in its use during the second half of the menstrual cycle in anticipation of pregnancy and during early pregnancy until the placenta assumes the function of the corpus luteum.

Progesterone may be administered either hypodermically or orally for its salutary effect on the decidua. The parenteral dose should be at least 10 mg. of progesterone every other day until quickening occurs. The patient may be spared the discomfort of injections by taking at least 60 mg. of pregneninolone daily.

The synthetic substance, pregneninolone (anhydro-hydroxyprogesterone), is closely related chemically to both progesterone and testosterone. It possesses a high degree of progesterone-like activity, and a rather low degree of estrogenic and androgenic activity. It may be employed orally as a substitute for the hypodermic use of progesterone. The oral dose required for a similar effect is approximately from 6 to 8 times the hypodermic dose.

Secondary amenorrhea. The manner in which progesterone exerts its effect on the disturbed pituitary-ovarian cycle is not fully understood. It is believed to act as a pituitary "stimulant" because its withdrawal dismantles the endometrium in a complete manner, giving rise, according to the Smiths,[12] to the stimulating breakdown product. Curiously enough, progesterone appears to be equally effective in amenorrhea of either pituitary or ovarian origin. Progesterone may be employed either in combination with estrogen, as described previously, or alone. In short-term amenorrhea the effects of progesterone alone are often noteworthy. As shown by Zondek,[13] 5 consecutive daily injections of 10 mg. of progesterone is good therapy for the institution of cyclic bleeding. This type of treatment, as well as the combined estrogen and progesterone injections, must be repeated several times at monthly intervals to achieve restoration of menstrual rhythm.

Anovulatory sterility. When the diagnosis of anovulatory menstruation is established, either by temperature graphs or by repeated endometrial biopsies, or by both, its endocrine etiology should be sought in assays for pituitary gonadotropin. If the ovary fails to ovulate because of a lack of pituitary gonadotropin, none of the hormone will be found in repeated assays of the urine. On the other hand, if the ovary is primarily at fault and the pituitary gland is functioning normally, demonstrably increased excretion of gonadotropin will be evident. Under the latter circumstances progesterone may be of distinct value. It should be administered during the second half of the cycle in large doses. We employ 50 mg. of progesterone on the tenth, twelfth, fourteenth, and sixteenth days of the cycle. Such a course of therapy is repeated for 3 successive months. Such therapy is not a panacea for all patients with anovulatory sterility, but it does evoke a change in the endocrine mechanism, enabling pregnancy to occur in some of the treated patients. In any case, it seems better than any other treatment of anovulatory sterility currently available.

The usefulness of progesterone has been extended by the fact that it is less likely to cause untoward effects when given in adequate doses than any other hormonal preparation. In fact, there are, in great contrast to estrogen, no particular contraindications to the use of progesterone. It has recently been recommended, for instance, that dosages as high as 100 mg. daily are not only safe but best in the management of habitual abortion.[14]

ANDROGEN

The clinical place of androgen in the treatment of functional menstrual disorders or related disturbances has not been clearly defined. Such clarification will continue to elude us until we possess some understanding of the role played by androgen in gynecic physiology. Even its more or less empiric usefulness is distinctly limited by the arrhenomimetic changes it evokes. In addition, certain women appear to be sensitive to the use of androgen so far as their skin is concerned. Patients with a seborrheic type of skin seem to develop acne from even modest doses of the hormone. Its therapeutic value stems from the summation of effects which tend to modify the action of estrogen in places where it exerts influence. These include, for instance, the endometrium, myometrium, and breasts. One of the theories advanced in explanation hypothecates that in the normal, sexually mature woman estrogens and androgens are in a state of dynamic balance, permitting femaleness to be expressed and menstruation to occur.[15] The equilibrium may, however, be upset in either direction. Albeit, androgen therapy arose not from explanatory theories but from its clinical effectiveness when used. Its chief fields of application include the temporary management of endometriosis, the control of certain mastopathies, and the management of selected instances of thoroughly studied menopausal menorrhagia.

Endometriosis. Small doses of androgen administered orally in the form of methyl testosterone may be employed for palliation in endometriosis. The dosage is approximately 30 mg. daily, taken during the first 3 weeks of the menstrual cycle and repeated for several consecutive cycles. Such androgen effectively controls pain during the time it is administered, but it is by no means a complete treatment for the disorder. It is particularly applicable in patients surgically proved to have endometriosis, in whom it is desired to maintain continued function of the ovary and to achieve repeated temporary respite from pain. We successfully use this periodic method of oral androgenic therapy in the management of endometriosis in women of childbearing age who desire to continue their fertility.

Premenstrual mastalgia. It is admittedly difficult to select patients properly for treatment of severe mammary pain of cyclic character. The predominant psychogenic element in many and the frequent spontaneous remissions in others reduce the validity of therapeutic claims for this condition. There is, on the other hand, no objection to planned, periodic courses of orally administered androgen for the temporary relief of pain. There is, once again it is emphasized, no need for parenteral therapy. Employing methyl testosterone in daily doses of 30 mg. during the 2 weeks preceding menstruation, in keeping with others[16] we find it effective in preventing the mastodynia. Naturally, since the precise cause of the pain is unknown and not removed, the condition generally recurs within several months of the withdrawal of the medication. As in the androgenic treatment of endometriosis with methyl testosterone, no untoward effects occur with this dosage.

It goes without saying, of course, that the type of mastalgia under discussion is that characterized by premenstrual pain and swelling without discernible organic change. In a few instances diffuse induration of the periphery of both breasts may be palpated, which regresses during menstruation. It must be remembered that such breasts may also be the seat of adenomas, benign or malignant, the finding of which, despite the cyclic mastodynia, requires immediate excision and histologic study.

Premenopausal menorrhagia. The management of excessive menstruation during the premenopausal years is based on the concept that the menopause will shortly be curative. It is merely necessary to obtain temporary cessation of the menorrhagia. The proper approach to such control is uterine curettage which, of itself, proves curative in a third of the patients. Moreover, it is an important diagnostic procedure, serving to delineate any submucous myomas and to exclude the presence of endometrial carcinoma. Even though the latter is uncommon during the premenopausal years, all of the tissue obtained by the curettage should be subjected to careful histologic study. This not only affords peace of mind concerning carcinoma but also uncovers the variety of endometrial change. The persistence of hyperplasia during the later years of the premenopause serves, in the light of our present knowledge, as a warning that the patient is a potential candidate for the development of endometrial carcinoma.

Androgen is eminently suited to the temporary treatment of premenopausal menorrhagia when it has been shown by previous curettage to be nonorganic in origin. If the patient may be brought safely through this period to the menopause by androgenic therapy, thereby avoiding the hazards of either intracavitary radium application or vaginal hysterectomy, it has some value. The oral administration of methyl testosterone in a daily dose of 50 mg. during the week preceding menstruation is adequate. The use of larger quantities, either orally or in hypodermic equivalents, may evoke masculinization phenomena.

In our opinion androgen has the limited usefulness described in premenopausal menorrhagia, but it has no place in the management of dysfunctional uterine bleeding at an earlier age and is not suited to the treatment of postmenopausal metrorrhagia.

SUMMARY

The use of gonadotropins and gonadal steroids in gynecology has been reviewed. The cardinal prerequisites to the prescription of any endocrine substance were reaffirmed, including the need to evaluate the whole patient in relation to her menstrual cycle and the desirability of an awareness of some aspects of hormonal pharmacology.

Gonadotropin therapy was reported as being in a most unsatisfactory state, except for the occasional usefulness of combined gonadotropins in pituitary amenorrhea and the prophylactic value of chorionic gonadotropin in habitual abortion.

The widespread clinical application of estrogen was justified on the basis of its physiologic abilities, namely, to cause growth of genital organs, to depress hypophyseal function, and to counteract androgenic effects. The value of estrogen in atrophic vaginitis, secondary amenorrhea, postpartum control of unwanted breast engorgement, and the menopausal syndrome were outlined. The several contraindications to the use of estrogen were emphasized.

The usefulness of progesterone was acknowledged in threatened and habitual abortion, sec-

(*Continued on page 598*)

BEHAVIOR PROBLEMS OF NORMAL CHILDREN*

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THE behavior problems of the normal child have often been overlooked in our concentration on the seriously disturbed children. It has even been argued that behavior problems cannot occur in a normal child. If we are going to classify as ill every individual who has a deviation from the absolute ideal, there will be no one healthy. Just as a healthy child can suffer a broken arm and still be basically a healthy child, so it is possible for a normal and well adjusted child to react to sudden loss, trauma, or increase in stress by the equivalent of a "broken heart." Under these circumstances the child may develop nightmares, nail-biting, thumb-sucking, or even enuresis for a time. The cause of these symptoms is often apparent, and when well handled the child goes through the experience and is again a healthy, well adjusted child. When the situation is not well handled there can be the equivalent end result as when the broken arm is not properly set, and thus there may be a long-lasting or even permanent defect as a result of what might have been a transitory experience to which the healthy child adjusted. From a psychiatric point of view the corrective handling of these situations may be called prevention. From a pediatric point of view it is simply the practice of good pediatrics with awareness of the child's disability and the consequent taking of proper therapeutic steps.

For the present we may divide these problems into three groups. It is impossible to discuss all behavior difficulties in normal children and therefore I shall touch only upon those which are most common and most easily dealt with.

GROWTH PROBLEMS

In the ordinary process of growth the child's world expands and he has new situations to meet and new problems to solve at each stage. It is the accepted process of childhood that with each new situation he experiments as to the best method of dealing with this in his own setting and in view of his own interests and desires.

In the first year to 15 months of life, depending upon the child, the child accepts the ministrations of those about him and, except for a smile which shows his pleasure and the beginning of experimenting in the response of others to his smiles and vocalization, he takes very little part in the world around him. As he grows somewhat older he begins to be aware of himself as a person separate from the outside world, and with this he begins to experiment in the limits of this self and in his rights and privileges. Up until this time he has responded quite automatically to his bodily needs in the taking of food and in excretion. Now he is beginning to realize that he has control over his own actions and therefore control over how much others may impose rules and regulations upon him. One of the first things that he learns is that he can refuse to eat. He learns that food can be placed in his mouth but that no power under heaven can force him to swallow unless he wishes to. If he is force-fed he learns that he can reject the food which has been forced into him. He also learns that he can be put to bed but that no one can make him go to sleep. He early learns that by excessive activity he can keep himself awake even when his whole body is crying out for sleep (and equally when his whole family is crying out for him to go to sleep). As he matures to the point where he can achieve some degree of sphincter control, he also learns that he can control this even more and that he can be put on the toilet but cannot be forced to have a bowel movement or empty his bladder. Here it must be pointed out that often another element enters, in that the child's tremendous desire to follow what is expected of him may create a seeming resistance. As the child sits on the toilet seat and tries very hard to empty the bladder or have a bowel movement, he may so tighten up all muscles of the body that the sphincters are equally tightened; then, when the mother eventually gives up and takes him from the toilet seat, he may almost immediately either wet or soil himself. Many times parents feel that this is a deliberate act on the part of the child, but it is much more apt to be explained on the basis of the release of tension. The effort at trying to have a bowel movement is now followed by the relaxation of the sphincters as the child is no longer making an effort which he cannot well direct. Punishment of the child under these circumstances leads to increased tension the next time he is placed on the toilet and may be the forerunner of very severe parent-child difficulties.

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* Presented at the Fifth Intensive Postgraduate Course, George Washington University School of Medicine, March 10, 1950.

It is important to point out that almost all of the difficulties at this stage of development occur with very conscientious, well-meaning parents who feel that the child must have a certain number of hours of sleep each night and must eat a certain amount of food at every meal. The tension which the parents show is of course communicated to the child, but in addition to this his own desire to explore how much power he has in determining what happens to him must be considered. In almost all instances the chief thing that is required to ease the situation that develops between parent and child is to reassure the parent that the child can go without certain foods or even without a meal without dire results. Few parents continue forcing a child to their will when they learn it is not to his best interest. Most of the eating problems are in well-developed, sturdy, rosy-cheeked youngsters, and often the asking of the mother to keep track of every bit of food which the child eats on his own volition is all that is necessary. The mother soon learns that there is more intake than she had dreamed and she had become concerned unnecessarily. A secondary result of this request is that the mother, in an effort to give a truly objective and scientific report as to what the child is eating, will not urge him to eat. A week of this activity, or lack of activity, on the part of the mother is often all that is necessary to straighten out the beginning conflict.

As the child continues to grow and to widen his world he may begin to copy activities of other children, but this usually is another form of experimentation to see how much will be permitted in his home and how much is an effective method of getting his own way. Here again the situation is usually a temporary one. However, as the child reaches school age he enters another period of readjustment. The child has to leave the home, where he was the center of attention in the family or at least shared it with no more than 2 or 3, and enter a room in which he may have to share the attention of 1 person with anywhere from 30 to 50 youngsters. The confusion of children about him, the demands of the new routine, and the need to adjust to a different person in authority may be a very wearing experience for the child. At this time many children will revert to earlier infantile habits such as nail-biting or thumb-sucking. When it is recognized that school is a strenuous activity for this child and that he is having to adjust to the next stage in his growth, this tendency to revert to the easier, infantile level can be seen to be comparable to the person who returns from a long day at the office to take off his shoes and collapse in an easy chair and hope to be waited on by his family. Here again the treatment is largely that of recognizing that it is a period of undue strain and trying to make things somewhat easier for the child at home and at the same time reassure him about his new activity in the outer world. The insistence on more sleep or rest, however, should not be so done that it adds to the child's sense of being pushed around and disregarded as an individual.

Behavior problems are to be expected in the outstandingly large or tall child in a class. A boy who is 7 but looks 10 will be subjected to the criticism of those who do not know him and may be so totally confused that he reacts with aggression or physical complaints. This matter of being much larger or much smaller than friends often presents acute problems to boys and girls in early adolescence. Sympathetic understanding and an absence of ridicule are most important in therapy.

RESPONSE TO TENSION

It has recently become popular to state that all emotional difficulties of children have their roots in an unhappy home situation. This is to oversimplify the etiology. With the young child this may be largely true, but with the older child making his adjustment in the school world and the community, this cannot always be the situation. It is true that a child's emotional reaction is determined by his family attitudes, and his ability to meet outside stress and strain is greater when his home is a secure and satisfying one. However, even under excellent conditions a child may be subjected to strain in school, or in the neighborhood, to frightening stories or to threats by older people, which may for a time bring about so much tension that he begins to show the effects of this in his behavior. In an overcrowded school in a city it was necessary to retain a teacher beyond retiring age, and she found the third grade children so extremely wearing that her days were a constant round of scolding and criticism. Those children who were not the direct targets for the day worried as to what might happen on the next. The height of this came when a small boy who had been having trouble with arithmetic was asked one morning what his father had said about his arithmetic paper. The boy replied that his father had been killed in France and could not give an opinion. The teacher's reply was, "Well, if he was as dumb as you he ought to have been killed." The shocked children dashed home to equally outraged parents. When the parents complained, the head of the school was also disturbed and then decided comfortably that third graders were probably too young to pay any attention to such things. Is it surprising that in this class the number of absences because of headaches and stomach upsets was far greater than that in the average third grade? And was it not evidence of good parent-child relationship when the parents allowed a child with such complaints a half-day's vacation from the constant strain of a teacher of this type?

A headache or stomach upset which comes only on schooldays merits examination. There is a tendency to say that the child is putting on an act or is imagining something, but this is unfair to the child. It is true that there is no organic difficulty to explain the symptom, but there is an emotional difficulty which is bringing it on. Children are basically dependent and have no way of dealing directly with their problem except through adults. An adult in a difficult job may be disturbed, but he has the possibility of leaving that job if he is willing to take the consequences. A child, on the other hand, who has the job of attending school but finds it more than he can bear, has no recourse except to illness. Repeated headaches or stomach upsets as well as nail-biting and tics are warnings that the strain under which the child is living is greater than he can handle.

Movies or radio stories are often blamed for reactions of children. This is particularly true with nightmares and other fears. Here, too, further investigation often discloses a different cause for the symptoms. A small boy announced to his physician that whenever he listened to the radio stories or read exciting comics he was afraid of burglars. He then added that he always trusted his parents and that when they were in the house he was not afraid. Further discussion disclosed the fact that the young parents, who had very little money, were inclined to spend the evenings with neighbors who had a television set, leaving the 8-year-old boy and his 5-year-old brother in the home alone. It was true that the houses were very nearby, that they could have heard the children if they had cried loudly, and that it was in a quiet neighborhood where nothing happened. However, for the 8-year-old this was a matter of concern in that he felt that there was no one to whom he could turn in case a robber did break in or any other possible dire thing did befall them. The parents found it difficult to believe that such a small matter could be important and commented that he had another human being in the house. However, the mother did agree that when she was alone at night with the children she sometimes found the creaking of the house a little disturbing. In this, as in many other instances, the comics and radio stories were simply pegs on which the child could hang his basic fear of being left with a greater responsibility for his own safety and that of his small brother than he felt able to sustain. An intelligent 10-year-old boy stated that he always got worried for fear there might be robbers in the mattress whenever his parents went out and left him with the care of his younger sister. He hurriedly added that he was sure there were none but in case there were there would be no one to whom he could turn and that this was always rather frightening to him. In the latter instance the boy remained wide awake awaiting his parents' return each night. They, in their zeal to do their share in the community in seeing that their children had a proper place to live, had overlooked the fact that the children were still dependent on them for the air of security as well as for the fact of security. These children are basically healthy and well adjusted but are reacting to a stress which is greater than they are able to deal with at their ages.

Learning Problems

In most instances in which a child who is otherwise bright and alert is having trouble with his studies in school, either the school or the parent will seek the advice of the physician. A complete physical examination with especial attention to vision and to hearing is the essential first step. A surprising number of children have had difficulty in school because of an undiscovered hearing defect. Often neither the child nor the parent has been aware of this, and the child has been accused of lack of coöperation and poor concentration and in general made to feel at fault for something which he could not help.

Almost every adult has at some time had the experience of facing an examination and suddenly having every bit of knowledge seem to disappear, leaving him feeling that he had never heard of the subject before. This same block can be experienced in childhood both at examination time and in general learning. There is no end to the number of emotional blocks to learning that can be found, and they range all the way from minor difficulties to major interferences with school activities. One of the most common is one in which the parent or the teacher is so intent upon the child's getting good marks that the child becomes tense and fearful of failure and is thus quite incapable of perceiving or remembering the material offered him. Under these circumstances the child may become resistant and have no interest in learning, feeling that this is entirely the responsibility of adults who should push him to study and to see that everything is done. On the other hand, a very conscientious child who wishes to please his parents may become so anxious to get everything correct that he seems quite unable to overcome the fear of failure and thus makes very poor progress. A 10-year-old boy who felt called upon by family attitudes to match the success of an older cousin in school finally became so convinced of his own inferiority that he refused to recite in school and approached each assignment with the firm belief that he was too stupid to get the material. Only the relaxation on the part of the parents and of the school, with encouragement instead of exhortation, made it possible for him to learn as well as he was able.

Another problem which is met fairly frequently is that of a specific reading disability. The exact cause of this is not known although there are many theories. It is true that a child with a specific reading disability often has a mixed dominance, in that he may be left-handed and right-eyed and right-footed or have some other type of mixed right- and left-sidedness. This is more frequent in boys than in girls. At times the reading difficulty is a transitory condition which with tutoring and help does not interfere too much with the child's learning, but at other times it may be so severe as to make it difficult for him to go through the later grades in school. Many of these children are exceedingly bright and have a good auditory memory. As a result of this, they are able to memorize the reading in the first and second grades, relating it to the pictures so well that they can pick up a sentence almost anywhere on the page, but they are reading entirely from memory. By the third grade the pictures are fewer and the amount of reading matter is greater, and thus their inability to read becomes evident. Specific reading difficulties occur even when the phonetic method is used in teaching reading, but with the flash card method a great many more children have been found with this difficulty. Special tutoring can help a child get past this situation, and this may be a simple matter of teaching him phonetics or it may be necessary for him to be taught by eye, ear and muscle movement at the same time. Children with this difficulty are often very embarrassed by it and assume that they are exceedingly stupid. Many times boys begin to feel inferior and then attempt to compensate by being the noisiest boy or the best fighter, or by playing truant from school. Most schools have reading classes which are available for slow readers and also for youngsters who have specific reading disabilities, but parents often find it difficult to accept the fact that their child needs special help. It is here that the physician can be of great assistance to the child by his attitude and advice.

The treatment of most of the behavior disorders of normal children can be readily handled by the family physician or pediatrician. Certain steps are important. First, there should be a complete physical examination of the child with full respect paid to the child's complaint and to the parents' anxiety. Second, it is important to discover the cause of the difficulty, and this can only be done with considerable time spent in discussing the situation with both parent and child. Third, the attention of the responsible adult in the situation must be directed toward the difficulty, but as in all illness there should be no criticism either of the child or of the adult if a desirable result is expected. Although it is sometimes surprising that parents can overlook certain obvious strains under which their children are living, one has only to remember that even doctors sometimes overlook an illness. It is necessary to reassure both parents and child without belittling either the condition or the person. Many parents will feel embarrassed, as will the children, if the physician finds no organic basis for the complaint, but, if he seems to be impressed with the reality of symptoms resulting from emotional disturbance, the child and his parents will be better able to accept this also.

SUMMARY AND CONCLUSIONS

1. Emotional adjustment affects both the child's growth and the child's behavior. Recent exhaustive growth studies have shown that there is a definite change in rate of growth during an emotional disturbance.

2. There is always a reason for behavior shown by a child (or an adult). Even the so-called "attention-getting-behavior" may be an indication that the child is being too much disregarded by those in his environment, or that he is frightened by the prospect of losing the only outward evidence of love which he recognizes.

3. As in all branches of medicine, nature heals at times without outside help, but it is essential that the physician at least be aware of what is going on and so be able to assist nature. It is true that children often grow out of certain behavior

(*Continued on page 598*)

INTRAEPITHELIAL CARCINOMA OF THE CERVIX UTERI*†

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IN THE past most of the information regarding intraepithelial carcinoma of the cervix has emanated almost exclusively from the large medical centers. It was felt that a comparable study of this condition, as encountered in an average general hospital, would prove valuable and interesting; therefore, a decision was made to determine the number of cases of intraepithelial carcinoma of the cervix encountered in the routine pathologic material available at the Garfield Memorial Hospital. Incidental to this decision, several related questions naturally arose: How does the incidence of this early stage of cervical carcinoma in the average hospital compare with that found in the medical centers? Can criteria be established to classify this disease accurately for statistical study? Can intraepithelial carcinoma be discovered and treated as readily and efficiently in a general hospital as in a large medical center? An effort to answer these questions will be made from an evaluation of the material available for this report.

The lesion variously called intraepithelial, in situ, or preinvasive carcinoma is, as the terms indicate, simply epithelial carcinoma which has not yet broken through the basement membrane. Since intraepithelial carcinoma cannot be detected grossly, the diagnosis of carcinoma in this stage can only be made histologically.

On low-power microscopic examination a disturbance of cell polarity, hyperchromatism of the nucleus, and a relative increase in number of cells may be noted (figure 1). The loss of polarity is the only constant finding. The orderly progressive stratification of the cells from the cuboidal basal cells to the flattened squamous surface cells is lost, the cells being haphazardly arranged. Usually this alteration involves the entire thickness of the cervical epithelium. On closer inspection other abnormal features may be observed, such as an altered cytoplasmic-nuclear relationship, a noticeable disparity in nuclear size and shape, and a variable number of mitotic figures not restricted to the basal layer. Only in intraepithelial carcinoma are mitoses scattered

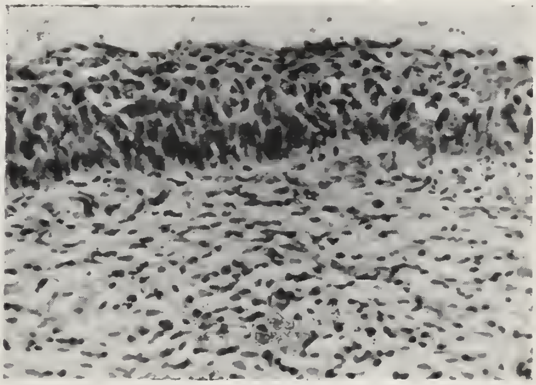

FIG. 1. Intraepithelial carcinoma of cervix showing loss of cellular polarity and hyperchromatism of some of the nuclei.

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throughout the epithelium, even in the most superficial layers (figure 2).

Frequently, sections of cervices with intraepithelial carcinoma will contain malignant cells extending down into the endocervical glands, and, if cut tangentially, may show isolated islands of cancer cells in the stroma. This is termed surface extension into glands and should not be interpreted as true invasion if the basement membrane is intact (figure 3).

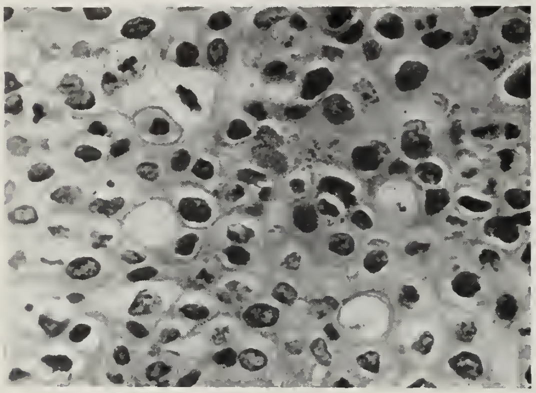

FIG. 2. Intraepithelial carcinoma of cervix showing mitotic figures throughout entire thickness of epithelium.

Squamous metaplasia should not be confused with carcinoma of the cervix, since metaplasia is the transformation of the normal columnar epithelium of the endocervix into a squamous type of epithelium. There is no direct relationship between carcinoma and metaplasia. The latter was present in 72 per cent of 1,238 consecutive cervices examined in this series, and in 83 per cent of a smaller series.[1] Squamous metaplasia, sometimes referred to as epidermidalization, is considered by some to be a tissue response to inflammatory or mechanical injury. There are few cases in which the differentiation between this and carcinoma in situ is difficult. In metaplasia the cells are large and uniform; the nuclei are small and lack the hyperchromatism of cancer cells, and little or no mitotic activity is seen above the basal layers.

The accumulation of accurate statistical material on cervices has been hampered by the use of such terms as "dyskeratosis" and "leukoplakia." The first term has been borrowed from dermatologic pathology, and there is little agreement as to its specific meaning in relation to the cervix. Leukoplakia is strictly a clinical term used to describe a slightly elevated white patch on a mucosal surface. It is not a histologic entity; therefore it cannot be applied accurately to microscopic sections.[2]

Rigid criteria must be utilized in selecting cases of intraepithelial carcinoma. The presence of in situ carcinoma in a cervical biopsy means either that it has been removed from the periphery of an invasive carcinoma or that the entire lesion is noninvasive. The entire cervix must necessarily be removed and thoroughly examined histologically before this distinction can be made. It follows that cervices which are treated by irradiation cannot be included in the category of proved intraepithelial carcinoma. Likewise,

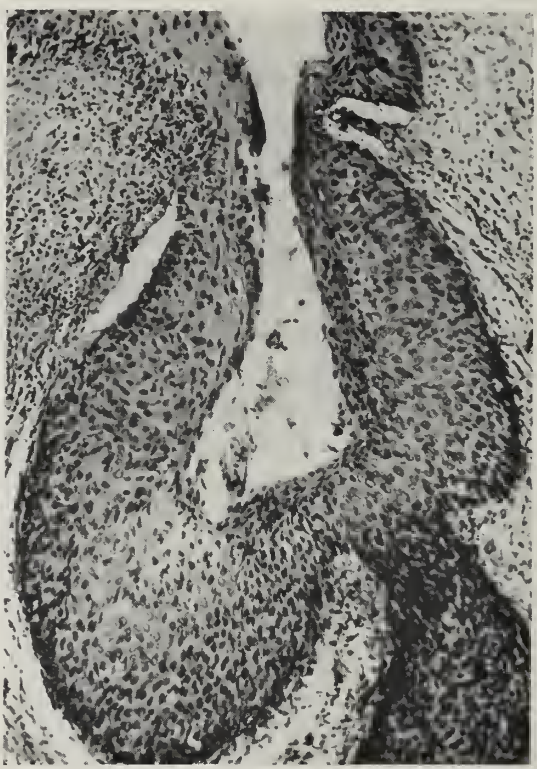

FIG. 3. Intraepithelial carcinoma of cervix showing surface extension into glands, often confused with invasive carcinoma.

cervices not completely removed and adequately sectioned may not be included. Without such standard basic criteria, any statistical study of intraepithelial carcinoma is of doubtful clinical value.

METHODS AND RESULTS

All uterine cervices and cervical biopsies received during the period from October, 1947 to March, 1950 were examined carefully. Multiple sections were cut from all biopsies which showed suspicious areas of epithelium. In each instance in which a diagnosis of intraepithelial carcinoma was made on biopsy the removed cervix was fixed in 10 per cent formaldehyde and a minimum of 24 sections cut and embedded. Multiple microtome sections were cut from each of the paraffin blocks. In this way, the entire cervical epithelium was examined, except for sections calculated to be less than 0.4 mm. in width. These cases have been grouped in 3 categories consistent with the strictest criteria: (1) proved intraepithelial carcinoma, (2) possible intraepithelial carcinoma treated by irradiation following a biopsy diagnosis, and (3) possible intraepithelial carcinoma diagnosed by biopsy but incompletely examined after surgery.

CASES IN GROUP 1

Case 1. A 35-year-old, unmarried, white woman, on physical examination for employment, mentioned having had a slight vaginal discharge for the previous 6 months. On visualization, the cervix appeared normal; however, routine cervical smears were obtained and were interpreted as carcinoma. Multiple biopsies were taken from the cervix around the external os at the squamo-columnar junction. On microscopic examination, 2 of these showed intraepithelial carcinoma. A total hysterectomy was performed, and sections of the cervix showed a large focus of residual intraepithelial carcinoma. The patient is well and at work, without evidence of recurrent carcinoma, after 1½ years.

Case 2. A 33-year-old, married, white woman was referred to a gynecologist because of a cervical erosion and a clear vaginal discharge. On visualization, a small superficial erosion was seen on the posterior lip of the cervix, and a biopsy was taken from this area. Microscopically this showed intraepithelial carcinoma. A total hysterectomy was done, and thorough examination of the cervix showed several foci of residual intraepithelial carcinoma. The patient is well and without evidence of carcinoma after 1½ years.

Case 3. A 23-year-old, married, white woman was referred to the gynecologic clinic by her family physician because of a superficial cervical erosion. A biopsy was taken from this area, and microscopic examination showed intraepithelial carcinoma. A total hysterectomy was performed. On examination of the completely sectioned cervix a small focus of residual in situ carcinoma was found. The patient is living and well after 2½ years.

Case 4. A 46-year-old, married, colored woman was seen in the gynecologic clinic with the complaint of a mucoid vaginal discharge. There was no visible abnormality of the cervix, but a large biopsy was taken from the anterior lip, which microscopically showed intraepithelial carcinoma. A Wertheim hysterectomy was performed, but no residual carcinoma was found in multiple sections of the cervix. The patient is well after 2½ years. This is the only patient in this group who was cured, so far as can be determined, by the initial biopsy.

Case 5. A 35-year-old, married, colored woman was admitted to the hospital with the complaint of slight intermenstrual bleeding. The initial biopsy showed intraepithelial carcinoma. A modified Wertheim hysterectomy was performed, and sections of the cervix showed residual foci of intraepithelial carcinoma. The patient died 2 years postoperatively, and an autopsy showed no evidence of carcinoma.

Case 6. A 43-year-old, married, white woman was rejected as a donor to a blood bank because she was anemic. For this reason she consulted a physician who in the course of a complete physical examination obtained cervical smears. The smears were interpreted as carcinoma. On reëxamination the cervix was normal in appearance for a woman of this age, and on close questioning it was found that she had none of the symptoms usually associated with carcinoma. The patient was admitted to Garfield Memorial Hospital where biopsies were taken from the external os at 12, 3, 6, and 9 o'clock. In addition to these, endocervical scrapings and endometrial curettings were submitted separately to the pathology laboratory. None of the tissue showed carcinoma, with the exception of a small fragment of cervical epithelium in the endocervical curettings, from which a diagnosis of intraepithelial carcinoma was made.

A modified Wertheim operation was performed 2 days after the diagnosis was established. The cervix was cut into 26 thin sections, 2 of which showed intraepithelial carcinoma.

Case 7. A 37-year-old, married, colored woman complained of having had vaginal spotting for a period of 3 weeks. A cervical biopsy showed intraepithelial carcinoma. One week later a modified Wertheim operation was performed. In the cervix, at the external os, a small area of intraepithelial carcinoma was found, and small fibromyomas were present in the fundus of the uterus.

These cases represent all patients with proved intraepithelial carcinoma of the cervix which were seen at the Garfield Memorial Hospital in the 2½-year period (table 1). A total of 1,238 cervical specimens were examined, representing, according to our criteria, an incidence of 0.57 per cent.

TABLE 1

*Group 1. Proved Intraepithelial Carcinoma**

CASE NO.	AGE	METHOD OF DISCOVERY	INVASION	TREATMENT
1	35	Cervical smear	None	Total hysterectomy
2	33	Cervical biopsy	None	Total hysterectomy
3	23	Cervical biopsy	None	Total hysterectomy
4	46	Cervical biopsy	None	Wertheim hysterectomy
5	35	Cervical biopsy	None	Modified Wertheim hysterectomy
6	43	Cervical smear	None	Modified Wertheim hysterectomy
7	37	Cervical biopsy	None	Modified Wertheim hysterectomy

* Four cases on the service of Dr. J. K. Cromer.

Cases in Group 2

Case 1. A 48-year-old, married, white woman was seen in the gynecologic clinic with the complaint of slight vaginal bleeding. The past history and subsequent pelvic examination revealed that she had had a subtotal hysterectomy for fibromyomas. Visualization revealed a friable, bleeding cervix, from which a biopsy was taken. Microscopic examination showed intraepithelial carcinoma only. The patient was treated by radium and external irradiation and is well, apparently without recurrence, after 2½ years. Post-treatment vaginal smears remain negative for carcinoma.

Case 2. A 42-year-old, married, white woman was seen by a physician with the complaint of mucoid vaginal discharge and a minimal amount of metrorrhagia. Visualization of the cervix revealed a granular, ulcerated cervix which bled easily on palpation. A biopsy was taken, which showed only intraepithelial carcinoma. The patient received radium and transvaginal irradiation to the cervix, and the lesion disappeared. There was no clinical recurrence for a period of 2 years, at which time the patient died from other causes. Autopsy permission was refused.

Each of these cases (table 2) could have been included with those of Group 1, on the basis of a single biopsy showing intraepithelial carcinoma. However, it must be assumed that the biopsies were taken from the periphery of an invasive lesion, since both women had clinical carcinoma. The presence or absence of invasion was not proved. Therefore, these cases are grouped separately in accordance with our strict criteria for the classification of intraepithelial carcinoma.

TABLE 2

Group 2. Possible Intraepithelial Carcinoma Treated by Irradiation

CASE NO.	AGE	METHOD OF DISCOVERY	INVASION	TREATMENT
1	48	Cervical biopsy	None	Radium and external irradiation
2	42	Cervical biopsy	None	Radium and transvaginal irradiation

Cases in Group 3

Case 1. A 33-year-old nurse was examined because of a vaginal discharge. Visualization of the cervix revealed a superficial erosion around the external os. A biopsy was taken from this area and reported as "chronic cervicitis with abnormal epithelium." On review of this slide 14 months later, unequivocal carcinoma in situ was found. A total hysterectomy was done at another hospital, and the few sections of the cervix which were cut showed no residual carcinoma.

Case 2. A 40-year-old white housewife, while being examined in the cancer detection clinic, was found to have a cervical erosion. One of the 2 biopsies removed from the eroded area contained intraepithelial carcinoma. A total hysterectomy was performed at another hospital after a delay of 6 weeks. Only 4 sections were cut from the cervix, none of which showed residual carcinoma.

Case 3. A 40-year-old, unmarried, colored welfare worker was examined in the cancer detection clinic, and a small, red, granular area was observed on the posterior lip of the cervix. Routine cervical smears were interpreted as carcinoma. A biopsy removed from the suspicious area demonstrated intraepithelial carcinoma incompletely excised. A total hysterectomy was subsequently performed at another hospital. No residual carcinoma was found in the incompletely examined cervical tissue.

Case 4. A 38-year-old woman was admitted to the hospital with the complaint of menorrhagia. The cervix was "hypertrophied, lacerated, and eroded," and the uterus was of normal size. Curettage and deep conization were done, but only the curettings were submitted for examination. Cervical epithelium which had been obtained incidentally with the curet showed intraepithelial carcinoma. When a total hysterectomy was performed later, 1 small focus of in situ carcinoma was found in multiple sections of the cervix. This case illustrates, as did case 6 in Group 1, how a diagnosis of intraepithelial carcinoma can be made on material obtained by pulling the curet firmly through the endocervix. It demonstrates, also, that a routine conization of the cervix is not a reliable method of treatment for intraepithelial carcinoma.

It cannot be determined definitely whether these (table 3) were cases of in situ carcinoma or cases in which the biopsies were removed from the periphery of an invasive carcinoma. Since definite proof cannot be established, all of these cases must be excluded from Group 1. Had they been included, this would have altered the incidence of proved in situ carcinoma of the cervix in this series, placing it in the vicinity of 1 per cent.

TABLE 3

Group 3. Possible Intraepithelial Carcinoma with Incomplete Examination of the Operative Specimens

CASE NO.	AGE	METHOD OF DISCOVERY	INVASION	TREATMENT
1	33	Cervical biopsy	None	Total hysterectomy
2	40	Cervical biopsy	None	Total hysterectomy
3	40	Cervical smear	None	Total hysterectomy
4	38	Uterine curettings	None	Total hysterectomy

CLINICAL ASPECTS

Intraepithelial carcinoma produces few symptoms. Some cases are now found through the use of routine cervical smears in patients who have no subjective symptoms whatever. Other women have had a vaginal discharge, postcoital bleeding, or some type of minimal intermenstrual bleeding. These common gynecologic symptoms possibly had no relationship to the presence of carcinoma, but they were the cause of the patients' presenting themselves for examination.

On inspection of some cervices with intraepithelial carcinoma, no abnormality is seen. In other cases, concomitant lesions, such as an erosion, a laceration, or a small granular area, may be encountered.

When there is no particularly suspicious area visible on the cervix, the selection of a biopsy site presents a problem. A thorough curettage is indicated and will usually prove or disprove the presence of carcinoma of the fundus of the uterus. The curet, pulled through the endocervix, may obtain epithelium for histologic examination. At the same time biopsies should be taken from the squamo-columnar junction "around the clock" at 12, 3, 6 and 9, as indicated by Foote and Stewart.[3] Their statistics indicated that biopsies taken in this manner would have demonstrated the presence of carcinoma in 92 per cent of all their cases. Another satisfactory method for determining the presence of carcinoma is the circular scalpel biopsy. By this method it is possible, with a sharp knife, to remove a cone of tissue which is satisfactory for microscopic examination. After removal of the cone bleeding can be controlled by coagulation. If endocervical and uterine curettage is done in addition to either method of cervical biopsy, virtually 100 per cent of all sites of intraepithelial carcinoma will have been covered. The demonstration of definite intraepithelial carcinoma on 1 section is sufficient evidence to justify treatment. Additional biopsies are unnecessary, and further delay of treatment is unwise.

Three of our 13 cases of carcinoma were discovered by the use of cervical smears. Two of these women would not have been investigated had it not been for the suspicious cells seen on the smears taken routinely. This fact reaffirms the value of routine cervical smears on all adult women undergoing a physical examination. It must be reëmphasized, however, that all smear diagnoses must be confirmed by biopsies before treatment is instituted.

The question of therapy is an individualized problem to be settled by the gynecologist and the pathologist together. Schiller[4] and others[5, 6] considered radical procedures to have no place in the treatment of intraepithelial carcinoma. Their views on therapy have been very completely described by Foote and Stewart.[3] Following a biopsy diagnosis of carcinoma in situ, a trachelectomy is performed. This specimen is thoroughly fixed in formaldehyde, then cut into 24 or more thin, numbered sections. Slides from each of these sections are prepared and studied. If there is any question concerning invasion, additional slides are prepared. If no invasion is seen in the numerous sections and the malignant epithelium is completely removed, further therapy is considered unnecessary. This conservative method of treatment constitutes good cancer therapy since histologic control insures complete removal. Trachelectomy does not invariably contraindicate full term delivery; thus, when the carcinoma is shown to have been completely removed by this operation, the opportunity to bear children is not necessarily denied the woman. Since the average age of women with intraepithelial carcinoma is about 37 years, this is an important consideration. If some of the multiple sections of the cervix show invasion into the stroma, or if carcinoma extends beyond the line of surgical excision, a hysterectomy is done. The ovaries need not be routinely removed, the decision depending on individual clinical and pathologic considerations.

As cautery coagulates tissue to such an extent that clear histologic detail is usually lost, the determination of the presence or the absence of carcinoma in biopsies removed by this method is difficult or impossible. Therefore, if conization is indicated, adequate biopsies should first be removed with a knife or biopsy forceps and submitted for accurate pathologic diagnosis.

Cases diagnosed intraepithelial carcinoma by biopsy alone and treated by irradiation cannot be classified as bona fide intraepithelial carcinoma. The presence or absence of invasive carcinoma adjacent to the biopsy site can be determined only by careful study of multiple sections.

Discussion

At least until such time as the treatment of carcinoma of the cervix is more successful than at present, it is most important that carcinoma be recognized in its intraepithelial stage. This is the only type of uterine cancer in which, following adequate treatment, complete assurance may be given the patient that she is cured. Proved intraepithelial carcinoma is a rare condition, as shown by its statistical incidence. The actual number of cases is unknown, since most contributors have failed to distinguish between proved and unproved intraepithelial carcinoma. The majority of biopsies showing intraepithelial carcinoma prove, on complete examination of the whole cervix, to have been removed from the periphery of an invasive carcinoma.

Recognition of carcinoma in the pre-invasive stage can be expected to become more frequent because of the rather abundant recent literature on the subject, the increasing number of cancer detection clinics, and the current trend toward obtaining routine cervical smears from all female patients. A systematic search is being made in many medical centers to discover these cases, and an increasing number are being found and treated.

Rubin,[7] Schottlaender and Kermauner,[8] and Schiller[2] were among the first to observe intraepithelial carcinoma and to realize its importance. Schiller developed the present concept of intraepithelial carcinoma, and very little basic information has been added to his careful observations. He believed that these epithelial changes were the early stage of most, if not all, cervical carcinomas and that a variable period was required for development into clinical carcinoma. Since that time many authors have subscribed to this concept. In 1932 Broders[9] wrote, "The day has passed when the epithelium can be considered noncarcinomatous or at most only precarcinomatous because it is within the confines of the basement membrane and, conversely, carcinomatous because it has penetrated beyond this barrier." This statement is as true today as when it was written; yet a few pathologists still believe that the diagnosis of carcinoma requires demonstration of invasion.

Additional evidence in support of the concept of intraepithelial carcinoma has been furnished by Meigs and Sturgis,[10] who demonstrated a chemical difference between normal cells and cancer cells. They administered radioactive phosphorus to a series of women and later obtained cervical biopsies from them. Their results showed the uptake of phosphorus to be greatest in invasive carcinoma and somewhat less in intraepithelial carcinoma, while a very small amount of phosphorus was picked up by the normal tissue. McManus and Findley[11] have demonstrated distinguishing histochemical changes in intraepithelial carcinoma. The glycogen granules present in normal cervical epithelium take a deep purple color when stained by the periodic acid Schiff's reagent (PAS) method. The cells of in situ carcinoma, lacking glycogen, do not take the stain and appear relatively colorless. These new lines of investigation show that cancer cells differ from normal cells chemically as well as histologically. They also show that the chemical changes take place before invasion occurs.

Cases have been reported which were sufficiently minute to be cured by biopsy. Galvin and TeLinde[12] reported twenty cases of intraepithelial carcinoma, 10 of which failed to reveal any residual carcinoma when the entire cervices were carefully examined. Schiller described foci of carcinoma in situ of the cervical epithelium measuring less than 3 mm. in greatest diameter.

It has been demonstrated that carcinomatous changes may be present in the epithelium of the cervix without invasion for periods of time ranging from 1 to 12 years before resulting in invasive carcinoma,[4, 13–17] but no case has been reported in which the epithelial changes interpreted as carcinoma have reverted to normal epithelium. In spite of the reported cases of carcinoma remaining in situ for long periods, it does not follow that treatment can be postponed safely after the diagnosis of intraepithelial carcinoma has been made by biopsy. It is not possible to determine the latent period for any individual case of intraepithelial carcinoma or to be certain that there is not invasion in other areas. Treatment should follow diagnosis without delay, as it should for any other type of carcinoma.

There appears to be considerable difference between the incidence of intraepithelial carcinoma found in this series and that reported elsewhere. Published data[1, 2, 6] indicate an incidence varying from 1.5 per cent to 3.9 per cent. Many other reported cases[15, 18–20] were not definitely proved intraepithelial carcinoma. For instance, Skapier[20] reported 21 cases of in situ carcinoma found among 10,000 women, only 11 of which can be accepted. The remaining 10 cases had "no record of treatment or follow-up," or they had "radium therapy." Our figure of 0.57 per cent represents only the cases fulfilling our criteria of intraepithelial carcinoma. It is felt that, if more rigid criteria were used in reporting this disease, the true incidence would be found to be somewhat less than 1.0 per cent.

Summary

Seven cases of proved intraepithelial carcinoma of the cervix are presented. These comprise 0.57 per cent of all cervices examined over a 2-year period at the Garfield Memorial Hospital.

Intraepithelial carcinoma of the cervix can be discovered and treated as readily and efficiently

(*Continued on page 599*)

MANAGEMENT OF ACUTE MYOCARDIAL INFARCTION

WILLIAM L. HOWELL, M.D., F.A.C.P.

Assistant Professor of Clinical Medicine, Georgetown University School of Medicine

SINCE prevention of immediate fatality is the first consideration in acute myocardial infarction, the logical approach to its management would seem to be an analysis of the early lethal complications and what might be done about them. The most frequent causes of death during this acute period include cardiac arrhythmias (particularly ventricular tachycardia terminating in ventricular fibrillation), thromboembolic phenomena, congestive failure, and shock.[1]

Myocardial hypoxia is the common factor in the production of complications. The reason for this becomes clear when it is realized that the area of focal necrosis, or infarction, lies within a much larger segment of myocardium which is ischemic. It has been repeatedly observed that following experimental or clinical occlusion of a coronary artery the area of infarction is smaller than the territory of the distribution of this artery or its branches.[2–8] The viability and normal function of this larger area of myocardium surrounding the infarct must be maintained if a complication is to be prevented. Whether this is possible will depend upon the availability of oxygen to this ischemic tissue in comparison to its oxygen needs. Moderate degrees of ischemia may be tolerated even for prolonged periods provided oxygen needs are not great. On the other hand, mild degrees of ischemia may be responsible for irreversible changes should the local oxygen requirements become excessive.

Myocardial hypoxia may conceivably be prevented or relieved in 3 ways: (1) by an increase in coronary blood flow, (2) by an increase in oxygen saturation of arterial blood, and (3) by reducing oxygen requirements of the myocardium.

Many drugs have been used for the purpose of increasing coronary blood flow. There is no good physiologic basis for the claim that they exist. Drugs used for this effect do not dilate the coronary vessels alone but cause generalized arterial dilatation, or, as in the case of atropine, act upon that segment of the circulation which is under vagus control. If cardiac output remains unchanged generalized arterial dilatation does not result in a sustained increase in blood flow to any one part. Atropine, which is selective in blocking vagus control, produces tachycardia and concomitant increased cardiac output, in turn causing increased coronary blood flow,[9] but to achieve this goal of increased blood flow is at the expense of tachycardia and increased heart work. Probably the most effective measures for the purpose of maintaining optimum coronary blood flow are those taken to support an adequate diastolic blood pressure (*vide infra*).

Adequate oxygen saturation of the arterial blood is essential for the prevention of myocardial hypoxia. This may be accomplished in most instances by the administration of oxygen by tent or mask. It is generally agreed that this form of therapy should be employed when cyanosis is present. Since this physical sign is subject to variables dependent upon skin blood flow, skin color, red blood count, etc., it may not be a reliable index as to the actual degree of lack of adequate oxygen saturation of the arterial blood. It is my opinion that pain, even in the absence of cyanosis, is sufficient indication for oxygen therapy and that its administration in this situation may be the difference between success and failure. It should be pointed out, however, that oxygen therapy has definite limitations. Not only must the factors of ventilatory function and coronary blood flow be considered, but arterial blood normally 94 to 96 per cent saturated is still 86 to 88 per cent saturated in the presence of easily detectable cyanosis. Hence, the potentialities of oxygen therapy in acute myocardial infarction in terms of myocardial hypoxia, while real, are not great.

In comparison to other measures for the prevention or relief of myocardial hypoxia, steps to minimize oxygen requirements are by far the most effectual. The difference between cardiac work at bed rest and during moderate physical activity is little appreciated. From a study of oxygen consumption and A-V oxygen differences Richards[10] has estimated that moderate physical activity increases cardiac output by 300 per cent, hence the obvious importance of the prompt institution and maintenance of rest in the patient suspected of having had an acute myocardial infarction.

To attain rest in the patient with acute infarction requires close attention to details. The effect of pain is complex and has many ramifications in the form of restlessness, apprehension, tachycardia, etc. and indubitably leads to increased heart work. It is important therefore that pain be promptly relieved and steps taken to prevent its recurrence. This may be accomplished by means of any of the well known narcotics administered either subcutaneously or intravenously.* It is important that basal narcosis be maintained for the first day or two because the pain of infarction characteristically occurs in paroxysms, and basal narcosis may preclude these paroxysms. Barbiturates or other sedatives may be used to control restlessness when pain is no longer a problem. Stellate or dorsal sympathetic ganglion block with novocain has been used by J. C. White[11] for pain unrelieved by narcotics. I have employed this procedure in that type of case with prompt and often sustained relief of pain. Warning should be given, however, that the procedure is not without some danger.

Aside from relief of pain, other measures in the management of acute infarction may serve to prevent increased heart work. Food and drink are probably best withheld as long as narcotics are regularly needed, not only because of diversion of blood to the gastrointestinal tract but because of the hazard of vomiting and aspiration asphyxia. Little attention need be paid to the bowels during the first few days, although later it is usually advantageous to employ mild laxatives to facilitate the act of defecation. Marked gastric distention, a serious and common complication, causes tachycardia and should be relieved at once by intubation and suction.

The importance of these measures for the prevention of myocardial hypoxia during the acute stage cannot be overemphasized. Clinical observations favor the view that the infarcted myocardium is less tolerant to hypoxia than is the myocardium of chronic coronary insufficiency. The patient with disabling coronary sclerosis and angina pectoris may provoke frequent ventricular premature contractions by exercise, whereas the patient with infarction is more likely to react with ventricular tachycardia terminating in ventricular fibrillation and death. The patient with severe angina may suffer for years without the appearance of congestive failure, whereas in the patient with acute infarction it may occur precipitously and in irreversible form. Cognizant of this intolerance of the infarcted heart to hypoxia, I have not been able to accept early ambulation as practiced in some clinics. If the acutely damaged myocardium can be protected during this period of hypersensitiveness to lack of oxygen, there is ample evidence that new collaterals may be formed to supply it.[12] While the duration of time necessary for this reparative process is not known, there is as yet no good evidence for shortening the usual period of from 4 to 6 weeks in bed.

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* Morphine, 11 to 32 mg., or $\frac{1}{6}$ to $\frac{1}{2}$ grain, may be safely given intravenously provided it is given slowly and is discontinued with the first sign of narcosis.

Thrombo-embolic Phenomena

The Report of the Committee for the Evaluation of Anticoagulants in the Treatment of Coronary Thrombosis and Myocardial Infarction sponsored by the American Heart Association furnishes statistically significant evidence for this form of therapy.[13] A total of 1,031 cases were studied in detail. Of these, 442 received excellent conventional treatment, while 589 received the same treatment plus the addition of anticoagulants. The mortality in the control group was 23.4 per cent as compared to 16 per cent in the treated group. One or more thrombo-embolic complications occurred in 26 per cent of the control group as compared to 10.9 per cent in the treated group. Cerebral embolism, while not always fatal, was 7 times as common in the control group as in the treated group. In this study heparin was used until the prothrombin time had been brought to therapeutic levels with dicumarol.* Satisfactory laboratory control is now available in most hospitals.

Cardiac Arrhythmias

Ventricular tachycardia terminating in ventricular fibrillation is the commonest cause of death during the first 48 hours following acute infarction. Its presence should lead one to suspect that infarction has occurred. A clinical diagnosis of myocardial infarction should lead one to anticipate the occurrence of ventricular tachycardia. It should be suspected at any time the pulse rate is in excess of 120. The diagnosis can be made only from an electrocardiogram, although it may be ruled out if the pulse is slowed by carotid sinus stimulation, since carotid sinus stimulation affects only those arrhythmias which arise in the atria. Management consists of prevention and treatment of the actual attack Levine first proposed the prophylactic use of quinidine for the prevention of ventricular tachycardia in myocardial infarction. Recently common practice has been to administer the drug if and when frequent extrasystoles made their appearance. Since quinidine in the doses used for this purpose† has proved to have such a wide margin of safety provided precautions are taken to avoid individual hypersensitivity, it has been my practice to use it routinely during the first few days following the acute episode.

For details of treatment of the actual attack the reader is referred to the work of Gold.[14] He points out that while a number of drugs have been used in the treatment of ventricular tachycardia (magnesium sulfate, novocain, etc.) a mass of data relative to results with quinidine favors its use. He administers the drug in doses of 0.6 Gm. (9 grains) every 3 hours with an electrocardiographic check before each successive dose. A widening of the QRS-interval to 0.12 second is taken as an indication for temporary withdrawal of the drug. Slowing of the ventricular rate is the immediate objective. Later, a spontaneous reversal to a normal rhythm may occur.

Other arrhythmias including auricular flutter, auricular fibrillation, and occasionally auricular tachycardia may complicate infarction. Their chief hazard lies in the rapid ventricular rates which they produce. Auricular flutter particularly has been found to carry a grave prognosis when complicating infarction. Probably the best approach to its management is an attempt at its arrest with quinidine initially, later rapid digitalization if quinidine is ineffective. Once flutter is converted into fibrillation with digitalis the drug may be discontinued and normal rhythm may be resumed. When auricular fibrillation complicates infarction initially it is often controlled successfully with quinidine. Supraventricular tachycardia is probably best treated conservatively with morphine, frequent carotid sinus stimulation, ocular pressure and a trial with quinidine, since, on theoretical grounds at least, strong vagal stimulants (prostigmine, etc.) have an adverse effect upon coronary blood flow.

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* Heparin, 50–75 mg., was given intravenously every 4 hours. Dicumarol, 300 mg., was given by mouth the first day. Subsequent doses of dicumarol were given, using the prothrombin time as a guide. Heparin was discontinued when therapeutic levels were reached.

† 0.2 Gm. or 3 grains at 3- to 4-hour intervals.

Congestive Failure

It is now agreed that congestive failure complicating myocardial infarction should be actively treated. Occasionally mercurial diuretics alone will suffice but usually digitalization is necessary. When digitalis is used it is probably best that the rapid method be employed, since congestive failure complicating infarction is likely to progress rapidly. There is no indication for subtherapeutic doses, although it is well to employ one of the more rapidly eliminated glycosides so as to avoid prolonged toxicity. Fortunately congestive failure is a relatively late complication of infarction, occurring at a time when digitalis is less likely to provoke ventricular tachycardia. The danger of ventricular rupture as a result of more forceful muscular contraction has probably been overemphasized.

Shock

More recently the active treatment of shock complicating myocardial infarction has been advocated.[15, 16, 17] There seems little doubt that some degree of shock is present in the majority of patients with infarction who require more than moderate amounts of opiates for the relief of pain. Although detailed studies of "cardiogenic" shock are lacking, it is logical to assume that it differs from other forms of shock largely in the added feature of reduced cardiac output. The usual clinical signs of shock including cold extremities, sweating, delayed venocapillary filling, and restlessness are commonly present. Falling blood pressure and tachycardia, late signs of shock, occur terminally. Although recovery from mild degrees of shock may be spontaneous, its high mortality to my mind warrants active, if not preventive, treatment. Students of shock agree that a rapid loss of effective circulating blood volume is the major defect and that promptness in replacement of this loss is the prime requisite for successful management. A small quantity of plasma or citrated blood given early may be more effectual than many times that amount given minutes later. Peters of Yale has stated: "Unfortunately, preconceptions so prevail that this life-saving measure is too often delayed until the shock has become irreversible."[18] I have employed this form of therapy in those cases showing cool, moist skin or delayed venocapillary filling. In most instances reduction in blood volume has been implied by elevated hematocrits. Pulmonary edema was no more common in treated than in untreated cases in the series of Epstein and Relman.[16] In those patients who have developed late signs of shock (falling blood pressure, tachycardia, etc.) intra-arterial transfusion as proposed by Seeley[19] and Page [20] may well be life-saving. The body does not long tolerate lack of fullness of the arterial tree. One factor in this intolerance may be the lack of sufficient hydrostatic pressure to insure adequate coronary blood flow. While intra-arterial transfusion would temporarily increase the pressure-head against which the heart would need to pump, the deciding factor might be the perfusion of the coronary arteries during diastole when the aortic cusps are closed.

Summary and Conclusions

Acute myocardial infarcts are usually surrounded by ischemic heart muscle. Prevention of hypoxia of this larger ischemic segment of myocardium is logically the first step in management. The evidence indicates that this can be best accomplished by measures to minimize local oxygen requirements, i.e., rest, relief of pain, etc. Oxygen therapy may be a valuable supplement.

(*Continued on page 599*)

President's Page

AFTER-VACATION THOUGHTS

Things that tire me:

- Complaints about aches—head, back, belly, or any other kind
- Committee meetings
- Telephone calls—night, morning, Sunday, or any other time
- Daylight saving
- Television and radio commercials
- Pressure groups
- My wife
- My secretary
- People
- Clocks, alarm and all others
- Bills
- Work, any kind, anywhere.

Guess what I need is another vacation!

Seriously, while it is a wrench to get back to work, all of us who attended the 21st Annual Scientific Assembly, with its splendid meetings and fine papers, must realize that somebody did a lot of it. Again, I wish to compliment the General Chairman, the chairmen of all the committees, and all the committee members for a hard task well done. Special thanks go to our Secretary, his assistant, and to all members of his staff who made the meeting such a success.

Wm. M. Ballinger

Editorials

THE ANESTHESIOLOGIST AS A CONSULTANT

Happily, there has been relegated to the past the practice of entrusting the administration of an anesthetic (fortunately it was usually ether) to an undergraduate student or an inexperienced interne, but we still retain the memory of the morbidity and mortality that followed in the wake. The rapid advance in the art and science of anesthesia has developed a large group of anesthesiologists who, by their unremitting efforts, have earned recognition in their chosen field and have become indispensable members of the surgical team.

A distinction can be made between the anesthetist and the anesthesiologist. We would class the former as a technician without adequate medical training and experience to meet the situations and responsibilities that the position demands. The anesthesiologist, on the other hand, must be a graduate in medicine, with clinical experience and ample knowledge of the physiology of respiration and circulation, thoroughly conversant with the mechanical apparatus he uses, and competent to meet emergencies by the use of artificial respiration, bronchoscopic aspiration, transfusion of blood, infusion of fluids and many details associated with shock and hemorrhage, particularly in their incipiency. With such a person in charge of anesthesia, the surgeon can be relieved of much anxiety and devote his entire efforts and attention to the task in hand.

In the present-day management of surgical cases the anesthesiologist occupies an important place, and it is not confined to his activity in the operating room. He should participate in three phases of the surgery, preoperative, operative and postoperative, and in each of these fields he has a definite place and definite responsibilities.

The preoperative visit of the anesthesiologist to the patient is of inestimable value, both in dissipating apprehension and securing a history and laboratory data that will form a basis for the selection of the appropriate anesthetic agent and method of administration. It is reassuring to the patient to have some details which were vague explained and any fear of an unconscious period removed. There is often established by such a visit a personal relationship that makes the difference between a smooth and a stormy anesthesia.

While a surgeon may have a preference for a certain type of anesthesia, if he is wise he will be guided by the advice of his consultant, the anesthesiologist.

Many hospitals have established recovery rooms for the surgical cases under the general supervision of the anesthesiologist, and it has been repeatedly and amply demonstrated that postoperative accidents and complications can be reduced to an astonishing extent by their installation.

It would appear that in any well-managed institution, in the interest of the patients above all else, the relation between the surgeon and the anesthesiologist should be that of consultant extending prior to the operation, through operation, and until convalescence is established.

In most metropolitan areas there is no excuse, except in rare instances, to employ other than a qualified anesthesiologist. Nor can it be said that the cost to the patient is prohibitive, for it is the experience of every surgeon that the anesthesiologist practices charity in the same generous spirit as every other member of the profession.

C. S. W.

PUBLIC SPEAKING

There are many occasions when physicians are called upon to express an opinion before a group. The group may vary in size from a handful of physicians at a hospital staff meeting to a large assembly of fellow practitioners or laymen. Many physicians refrain from expressing themselves, especially in large meetings, even when they have something worthwhile to say, because of a sense of inadequacy.

There are a few gifted physicians who are able to get up before any audience and speak effectively; such individuals are envied by their less confident, if not less gifted, brethren. The fact remains, nevertheless, that the great majority of doctors do not speak well in public and need considerable training.

Every man cannot become a Demosthenes, a Webster, or a Churchill, but it is possible for anyone to improve his ability to speak in public. The common-sense rule of doing something over and over to better one's self applies to speaking as to any other endeavor. Book instruction helps little to make one feel self-confident on a platform before an audience. What is required is practice under expert guidance and supervision so that common errors can be pointed out and improvement suggested. There is no substitute for a regular period devoted to improving public speaking ability because no skill except that of writing requires such persistency of effort to achieve the maximum of effectiveness. Incidentally, the same principles apply whether it be an impromptu three-minute talk, an hour's prepared speech, or a thirty-minute scientific presentation.

In 1939 30 physicians completed a course in public speaking sponsored by the Medical Society's Committee on Public Relations. Although there was much favorable comment on this project, a second course was not undertaken until the fall of 1949, when 20 members enrolled for a series of 10 weekly 2-hour sessions. Even though the attendance at these sessions was not 100 per cent, the majority were at each session and there was genuine enthusiasm.

On the first evening every doctor in attendance sat down after his first trial feeling quite limp. There was no prospect in his mind of ever standing before an audience without his knees keeping time with "Show me the way to go home," or with such a dry throat that the next sentence would not be heard beyond the first row. There were some who spoke better than others and a few who were most deficient. However, everyone in the group had faults quite obvious to the instructor. These deficiencies were called to the speaker's attention time and again throughout the course. Participants prepared three-minute speeches on different subjects and made use of a variety of mediums that assist the public speaker, such as visual aids. At the conclusion of each speech one of the members of the class was called upon to criticize the speaker.

Common faults in public speaking are not obvious to most people. Listeners who are unimpressed by a speech often feel that the topic presented was uninteresting, when, as a matter of fact, the fault was in the delivery and not in the subject matter. It was not long before participants in the public speaking course discovered the truth of this and bettered their delivery. No individual completed the course without feeling that his time and his $25 fee were spent most advantageously. The most common question asked was, "When will there be a postgraduate course?"

It is not proposed that public speaking be a 'must' for every member of the Medical Society. It is recommended, however, that those members of the Society who are interested in bettering their ability to speak in public be afforded an opportunity to improve themselves. If sufficient interest is shown by the membership its very efficient Secretary will see that such a course is offered. Maybe there is room for an annual course in public speaking.

Marcel J. Foret, M.D.

THE REVERSIBILITY OF PORTAL HYPERTENSION

Our knowledge of the syndrome of portal hypertension with bleeding esophageal varices has increased since the development of surgical procedures providing for the shunting of blood from the portal venous bed to the inferior vena caval bed. However, our ignorance about the mechanisms for portal hypertension persists and is highlighted by a recent discussion of the pathogenesis of ascites.[1]

A review of such mechanisms and certain clinical phenomena suggests that in an occasional case the syndrome may be reversible.

It is accepted that the hepatic venous bed may be restricted, either as a consequence of perilobular scarring and/or parenchymatous swelling. The results of portal vein perfusion experiments have not always been consistent, indicating that other than purely mechanical factors are operative. Herrick[2] believed there was much freer communication between the venous bed and the hepatic artery than in normal livers. Dock[3] was able to demonstrate an increased arterial bed in cirrhotic livers by injecting cirrhotic livers with radiopaque jelly. He also felt that portal perfusion was usually normal in cirrhotic livers with considerable fibrosis but little fatty changes. In experiments in which the portal vein and hepatic artery were perfused at physiologic pressures[3, 4] he showed that all cirrhotics showed some reduction in total flow, but it was most striking in fatty livers. And the greatest reduction occurred in an alcoholic fatty liver in which no cirrhosis had developed. Knisely's work[5] on viable mammalian livers showing inconstant, ever-changing anastomoses between the branches of the hepatic artery and the sinusoids of the liver demonstrates the need for further studies on viable tissue to further our understanding of this problem. He was able to show that under different physiologic conditions almost all or none of the blood going through the liver was derived from the hepatic artery. It is clear, therefore, that unknown physiologic factors also may contribute to portal hypertension. Indeed, it is interesting that Knisely's work shows the theoretical possibility of "functional portal hypertension."[1]

Many clinical observations confirm the resolution of the fatty liver, with and without cirrhosis. We are all familiar with the lateral abdominal polygonal venous pattern (usually indicative of portal hypertension). We have all seen it come and go during the course of infectious hepatitis. We have all seen varices elsewhere in the body come and go. These considerations provoke the thought that in an occasional case the syndrome of portal hypertension with bleeding esophageal varices may be reversed under medical therapy. This may be an important theoretical point to consider in the occasional alcoholic with bleeding esophageal varices who under treatment loses his venous pattern and in whom liver size and laboratory studies return to normal. It would argue for a period of esophagoscopic observation of the varices prior to advocating a portacaval shunting procedure.

NICHOLAS J. COTSONAS, JR., M.D.

MEETINGS

Wednesday, November 8

PANEL DISCUSSION ON THE LATEST IN POLIO

The program will be sponsored by the *Section on Pediatrics.* Speakers and subjects to be announced.

Wednesday, November 29

CLINICOPATHOLOGIC CONFERENCE

This Conference will be arranged by HAROLD J. JEGHERS, M.D., Professor of Medicine, Georgetown University School of Medicine.

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[1] Combined Staff Clinic: Am. J. Med., 1950, **9,** 102.

[2] Herrick, F. C.: J. Exper. Med., 1907, **9,** 93.

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In and Out of Focus

BY THE OBSERVER

Is Civil Defense Necessary?

These are days of contradictions and it is not surprising that people are bewildered. High Government officials assure us, on the one hand, that peace is close at hand and, on the other, that we must be prepared for any eventuality, even war; that we can lick Stalin with one hand behind us, and that we are lamentably weak; that we need not concern ourselves too much about civil defense, and that we are in danger of being wiped out unless we bestir ourselves.

In the light of such statements, it is not too surprising that those upon whom has fallen the responsibility for evolving a civil defense program have been hesitant about taking the initiative. Your Observer mentioned this to a former Naval medical officer the other day. He said, "Well, I doubt very much if anything will be done until a bomb has been dropped—that would do it!" Let us hope it isn't as bad as that.

The District Medical Society's position in regard to civil defense has long been that Washington should be prepared for any eventuality. Some three years ago the Society established a Committee on Emergency Medical Service whose primary function was to develop a medical care program which would be adequate in the event of a disaster, whether it be of a peacetime or a wartime nature. The Committee hadn't gotten very far with its plans before it discovered that its task was far greater than had been anticipated; that the coöperation of official and voluntary groups was essential; and that the program must of necessity be developed on a Metropolitan Area basis. However, the Committee's thinking was apparently too advanced, for it could obtain little official support for its views until early in 1950, when a meeting of representative citizens was called by the District Commissioners. Brigadier General Young, Engineer Commissioner, then informed the citizen groups of the threat to Washington in the event of attack. The Society's Committee immediately volunteered its services, and upon the request of a temporary civil defense organization created a medical committee whose activities were later transferred to a committee headed by the District Health Officer.

Further activity was suspended, or virtually so, pending the passage of legislation creating a civil defense organization in the District. A civil defense bill was finally enacted by Congress and signed by the President. However, funds provided for in the bill were reduced by the Appropriations Subcommittee of the House District Committee from $290,000 to $30,000.

It was this which prompted the Society through its Secretary to direct letters to both Senator Lister Hill of Alabama and Congressman Joseph B. Bates of Kentucky. In writing Mr. Bates the Secretary referred to a statement which had appeared in the *Washington Daily News* for August 30. Mr. Bates was quoted as saying that he had not had "one single, solitary phone call or letter from any citizen of Washington showing public fear or interest in civil defense." The Secretary observed: "I am sure that this statement would come as no surprise to physicians of our Society who have taken an interest in this matter, because it is their impression that people are generally very vague in their appreciation of the havoc which a bomb attack might cause and therefore not too deeply concerned.

"The medical profession is naturally much more keenly aware of the devastation and the suffering which might result from an atomic attack. For some years now they have heard quite a number of eminent doctors speak on the subject and have seen films which depict the horrors of atomic casualties."

The Secretary then reviewed in some detail the activities of the Society's Committee on Emergency Medical Service, pointing out that the Committee had been hampered by the lack of funds and had gotten no further than paper planning before the meeting in April of this year called by the District Commissioners. The letter concluded with the following statement:

"Our Committee has been very disheartened at times by the slowness of the progress made. It still seems to our physicians who are active in this field that the apathy toward this matter is most unrealistic and that the result in the event of a disaster might be appalling. It is the latter possibility that has kept the Committee at its task.

"We are not too familiar with the amount of money that would be needed to underwrite an adequate civil defense program for the District; however, the figure $300,000 does not seem unreasonable. In fact, if a real civil defense program is needed, it would seem that this would only be the beginning in the way of expenditures. It is understandable to us that most of the money would go for the employment of personnel because the organization's function would be largely of a service nature.

"Your Subcommittee has undoubtedly studied this aspect of the proposed program much more thoroughly than we. All we wish to make clear to you and your Subcommittee is that the medical profession of Washington and the nearby areas in Maryland and Virginia have long urged the need for an adequate civil defense program in the District. That, if the danger of attack is as great as we have been led to believe, delay in perfecting a civil defense program is highly dangerous."

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Medical Officers' Dues Remitted

During World War II most medical societies endeavored to be of every possible assistance to their members who entered the armed services. Several kept in touch with them through their journals and other publications. Others, like the District Medical Society, communicated with them by letter in an effort to bring home just a little closer, especially to those stationed in distant lands. Many societies cancelled a portion or all of the dues of their members in the services for the duration of the War.

There was little precedent for such activity and while undoubtedly a better job could have been done, your Observer is under the impression that it was on the whole acceptable to physicians in the services. From a Medical Society official's point of view there were many knotty complications. There was never any doubt as to what should ordinarily be done about dues of members on active duty, but it was soon discovered that unusual situations existed. Some physicians who were on active duty in Washington still carried on their private practices. Physicians in the armed services who had not previously been connected with the Medical Society sought affiliation. A few were separated from the services after only a month or two of active duty. The variety of such circumstances is illustrated by the fact that there were some dozen different actions taken by the Executive Board of the District Medical Society during the recent war in an effort to do justice to the physician who gave up his practice to accept a commission in the armed services.

Recently the Board reviewed its actions during World War II in anticipation of a number of Society members being called to duty. At a meeting held on August 28, 1950 it adopted the following motion:

"THAT, effective January 1, 1951, dues of Active members who enter the armed forces for an extended period (not less than one year) be remitted and that where the member is activated before April 1 he shall not be required to pay dues for the current year; if activated after that date he shall be required to pay his dues.

"THAT following the first year of continuous service in the armed forces, the Active member's dues shall be remitted until his separation from the armed forces which, if it occurs before April

1, shall make the member liable for payment of current dues; if after that date, he shall not be required to pay dues until the following year.

"THAT where a member enters the armed forces but continues to carry on civilian practice in the community, his dues shall not be remitted.

"THAT medical officers who apply for Active membership in the Society while in the armed forces shall be required to pay $20.00 for the first year; thereafter their dues shall be remitted as in the instance of those who were Active members prior to entering the armed forces.

"THAT the American Medical Association be notified of the above action and be requested to take similar steps to relieve members of the Association in the armed forces from paying membership dues."

Errors in billing physicians in the armed services will be avoided if members notify the Society's Executive Offices when they are assigned to active duty. Should a member not remain in the armed services for the period prescribed in the above motion, he will, of course, be billed in the regular manner for his dues.

At the time this is written there are very few on active military duty. However, the situation may change considerably before these lines appear. Whatever the situation may be, the above action by the Board should meet with the general approval of all Society members.

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Medical Publicity

Generally speaking, physicians are extremely publicity-shy. There are exceptions to this rule, but a majority lean over backward to avoid the criticism that they are seeking to attract undue attention to themselves. They know only too well how easy it is to acquire the reputation among their fellow practitioners of being an "advertiser." Fortunately, a more tolerant and realistic attitude is now being taken by many physicians. The view is gaining acceptance that what the medical profession knows and does is more frequently than not of legitimate interest to the public. In fact, it is the obligation of the profession to enlighten the people in every way possible in regard to matters pertaining to their health.

In line with this changing attitude there has been a more intelligent approach to publicity. No longer does the appearance of a physician's name in a newspaper elicit the caustic comment it formerly did. Unless it is obvious that publicity is sought for self-aggrandizement little is thought about it except among a small group whose thinking has not changed. Credit for this is in large part due to the medical leadership of a number of progressive organizations throughout the country, of which the District Medical Society is an example.

In 1940 the Society adopted some "General Recommendations Governing Members of the Medical Society of the District of Columbia Regarding Publicity." These Recommendations have just been revised and it occurred to your Observer that the revision, which has not yet been widely publicized among Society members, would be of interest to his readers. The text of the Recommendations follows:

GENERAL RECOMMENDATIONS GOVERNING MEMBERS OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA IN THEIR RELATIONS WITH THE PUBLIC AND WITH LAY PUBLICATIONS

The Medical Society of the District of Columbia has long recognized its obligation to provide the public with authentic health information. Several years ago it assigned to its Committee on Public Relations the task of furthering an educational program. Since that time the Committee has made very effective use of the Speakers Bureau and the radio.

An important phase of its educational program has been the preparation and the release of articles for publication in lay periodicals. The Committee learned long ago that if it is to perform this task satisfactorily, it must have the coöperation of the Society membership. It was this which in 1940 prompted the Committee to propose the adoption of General Recommendations Governing Members of the Society Regarding Publicity. These Recommendations, which were approved by the

Society, have now been brought up to date for the guidance of members and read as follows:

1. Members wishing to give information to the press or radio news services on a health or medical subject should inform the Secretary of the Society to this effect. If it seems desirable, proper release of the information through the Society's Committee on Public Relations will be arranged.

There will, of course, be occasions when such clearance is unnecessary. For example, should a physician be called upon to issue a bulletin in regard to the condition of a patient of prominence under his care, he will first of all take into consideration the legal restrictions placed upon him with respect to privileged communications. He will also be governed by the wishes of the patient or his family. He need not seek the advice of the Committee unless he wishes to do so.

If the subject matter has nothing to do with medicine, it obviously does not come within the province of the Committee. However, even here the physician may wish to consult the Committee, which will be pleased to assist him in any way it can.

Instances in which the Committee can be most helpful are where the contemplated statement involves the physician's specialty or some scientific or technical phase of medicine.

2. Members invited by individuals or organizations to make a public address, a radio or television appearance, or to write articles on health or medical subjects for lay consumption should inform the Secretary of such invitation if they desire the benefit of the Committee's suggestions. While consultation is not required, Society members are advised against making talks, participating in broadcasts or telecasts, or writing for lay consumption without seeking the Committee's advice. Adherence to this procedure is in the best interests of the public and the medical profession.

3. Any officer or member of a board or committee of the Medical Society of the District of Columbia who writes an article for lay consumption, who delivers a speech over the radio or in public on a health or medical subject before a lay audience, or who appears on a television program should use the title of his office in the Society. No member, whether or not he serves in an official capacity, is authorized to commit the Society publicly to a policy unless specifically instructed by the Society to do so.

A member of the Society who does not hold an office in the organization should, where possible, use an official title, i.e., position on the medical school faculty, membership on a hospital medical staff, office in a medical organization other than the Society, or his affiliation with an official or non-official health agency or organization. Under ordinary circumstances the member should not direct attention to his specialty.

4. The basic principles which should guide the physician in his relations to the public and lay publications are:

(a) Proper medical publicity is the issuance of a public statement concerning an event of general interest and importance. It stresses the happening rather than the individual.

(b) Undesirable medical publicity is the publication of material relating to individual activities designed to magnify the importance of that individual in the eyes of the public.

(c) Public health education is the impartial instruction of the public in facts relating to the nature, prevention, and treatment of disease. It stresses the facts rather than the individual presenting them.

About three years ago the Society's Committee on Public Relations and Washington newspapers agreed upon a joint effort to improve the quality and quantity of medical newspaper coverage. The principal points in this agreement were:

1. The Committee agreed to coöperate with the press in every way possible in its effort to publish accurate health and medical information.

2. It further agreed to prepare a list of physicians in the various specialties and general practice who would respond to calls from reporters seeking verification of scientific information contained in press reports. It was agreed the physician called by the reporter should not be quoted by name except with his permission; then it should be stated that he is a member of the Society's Committee on Public Relations.

3. Where matters of the Society's policies are concerned, calls should be directed to the Secretary of the Society who would, if possible, provide the information requested.

4. That at intervals the Committee or its representatives meet with representatives of the press to discuss mutual problems.

The above arrangement has worked out satisfactorily to both the newspapers and the medical profession.

While nothing is as perishable as news, espe-

Calendar of Meetings

August 16	Executive Board
August 18	Committee on Public Health Exhibit, Annual Scientific Assembly
August 21	Obstetrical Board
August 23	Executive Board
August 24	Subcommittee on Child Welfare Physician-Veterans of World War II
August 25	Committee on Attendance, A.S.A.
August 28	Executive Board Committee on Cancer Control
August 29	Committee on Social Affairs, A.S.A.
August 31	District Division of American Cancer Society
September 5	Grievance Committee Committee on Military Affairs Registered X-ray Technicians of D. C.
September 6	Committee on Medical Care Committee on Military Affairs Committee on Attendance, A.S.A.
September 7	Committee on Radio, Television and Motion Pictures, A.S.A.
September 8	Bond Issue Committee Committee on Arrangements, A.S.A.
September 11	Committee on Coöperation with D. C. Bar Association Sports Committee
September 12	Membership Luncheon Medical Officers' Reserve Units
September 13	Executive Board Committee on Physician Relations, Medical Service D. C. Medical Technicians
September 15	Committee on Scientific Program and representatives of smaller medical societies

cially in these tumultuous days when matters of vital importance to our very existence hold the front pages, it certainly can be said that consistently honest and objective medical news coverage benefits all parties concerned—the public, the press and the medical profession.

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New Parking Privileges Sometime in the spring of 1949 it was suggested to your Observer that an attempt be made to get Washington hospitals to approve a sticker authorizing physicians to park their automobiles in any hospital parking lot. Your Observer discussed the suggestion with Mr. Robert P. Bryant, then Executive Secretary of the Hospital Council for the National Capital Area. Mr. Bryant reacted favorably to the proposal and said he would take the matter up with his Council. Nothing further was heard from Mr. Bryant or the Council until November, 1949, when Mr. Henry D. Hamilton, Mr. Bryant's successor, wrote your Observer he had discovered that Mr. Bryant had obtained the consent of the Department of Vehicles and Traffic for member hospitals of the Hospital Council to issue the suggested stickers, and inquiring if the District Medical Society was still interested. Mr. Hamilton was advised that the stickers would be most welcome and that the Society's Executive Offices would be glad to distribute them to members. Not until August of this year was there any further news in regard to the stickers and then a letter was received from Mr. Hamilton stating that a supply was being forwarded to the Society.

In authorizing the use of these stickers, the Department of Vehicles and Traffic has stipulated that they must be placed on the windshield immediately behind the rear view mirror. The list of hospitals who have agreed to recognize them are: Alexandria, Arlington, Casualty, Children's, Columbia, Emergency, Episcopal, Gallinger Municipal, Garfield Memorial, Georgetown University, George Washington University, Providence, Sibley Memorial, Suburban, St. Elizabeths, U. S. Naval, Veterans Administration, and Walter Reed Army.

Most members have already taken advantage of the special parking privileges granted by the Department of Vehicles and Traffic and the Washington Metropolitan Police Department to physicians when on emergency calls. Cards to be displayed on windshields when it is necessary to park in violation of regulations are furnished physicians upon request. The new hospital parking privileges should be a welcome supplement

(*Continued on page 600*)

GOOD HEALTH IN WARTIME MASS EVACUATION

A Civil-Military Medical Challenge*

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Although mass evacuation of populations during war has had timely press coverage, our people have limited ideas of the effects of such a measure. Controlled mass evacuation frequently may benefit evacuees, reception areas and the Nation when properly planned ahead and conscientiously administered. But the people must be informed in procedures and the phasing of evacuation plans if there is to result a healthy confidence in the advantages and future worthiness of public participation. At the same time physicians should participate effectively in order to reduce or eliminate medical and health menaces incident to evacuations. Especially important is advice from mental hygiene consultants from the beginning.

Citizens will expect physicians' advice and leadership in this whole matter. All could then aid governmental and other agencies in achieving economy and efficiency in the procedures. Convinced that more information concerning the subject will improve both public and medical support to limits of our respective capabilities, the objective here is to present a few experiences available to us for study, then to summarize the medical planning required.

The British state realistically that dispersal of the population over the country is the aim of any evacuation plan,[1] and define simply the activities requiring preliminary planning, all with health aspects. The position is supported by experience, to be found in civilian preplanning, implementation, and recent evaluation of health and other effects of the World War II evacuations of nearly a million and a half under Ministry of Health guidance.[2]

United States' experience is illustrated by the military evacuation of a hundred thousand Japanese from the West Coast in 1942[3] with civilian medical aid. Evaluation of this operation[4] does not permit ready comparison with British data because of dissimilar factors.

Allied civil-military experience in planning[5] and handling medical affairs related to evacuations, resettlements, and relocations of 16 millions in Europe from 32 countries and 6 million Japanese from 19 Asiatic-Pacific areas[6] furnishes still wider evidence of need for military-civil integration of plans to meet potential problems.[7]

One other responsibility could be mass evacuations during war but made necessary by disasters of nonwar origin. The Winnipeg flood of 1950, with a hundred thousand evacuees, could readily occur during war. Hence, we must broaden our perspectives for all eventualities.[8] Evacuation plans of all types require integration with military plans, casualty service plans,[9] and plans for public health services required in civil defense.[10]

Our discussion here must be limited. Therefore, medical factors requiring preplanning for controlled evacuations during war are summarized in the accompanying table. They reflect past experience rather than currently established responsibilities, authorities, or plans. They must be disregarded in the event of future authoritative decisions incompatible with this forecast.

To conclude, the sole objective of this discussion is to achieve oriented thought and reflection upon the extensive medical implications of mass civilian evacuations and the preplanning which they require to assure national success under circumstances of war. A glance at the table on the following page will, no doubt, give sober proof of the many medical problems, but at the same time should create confidence that we could meet them successfully if required, primarily because we can see our goals more clearly when presented in orderly manner.

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(Continued on page 600)

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* Personal opinions only; no official military or civil authority, attitude or policy is implied or applicable.

*Medical Factors to be Planned in Controlled and Escorted Mass Civilian Evacuations during War**

AREAS†	PURPOSE	TYPES	PRIORITIES FOR SELECTION (BY CATEGORY)	SUGGESTED RESPONSIBILITIES OF AUTHORITIES	
				State and Local	National
Evacuation (Target, industrial, difficult of maintenance under adversity)	1. Preserve race 2. Reduce area population a. Emergency services b. Transport and supply needs 3. Protect evacuees 4. Increase, stabilize, protect war industries and production	1. Voluntary exodus 2. Organized voluntary evacuation a. Personal support b. Attendance 3. Compulsory evacuation	1. School children‡ with teachers and escorts 2. Mothers with children under 6 years 3. Pregnant women (except in 9th month)§ 4. Old, infirm 5. Blind, crippled, handicapped 6. Insane 7. Others a. Non-productive in war effort b. Homeless due to war	1. Designation of control agency for: a. Plans b. Operations 2. Designation of agencies for: a. Registration—premises, assembly points, attendants b. Medical inspection, classification, identification, immunization, treatments, hygiene, sanitation, water and food supplies c. Selection and appointment of: (1) Attendants (2) Escorts (3) Teachers (4) Medical personnel d. Transport e. Publicity and instructions	1. Designation of areas—evacuation, reception, neutral 2. Prescribing uniform procedures, responsibilities, authorities 3. Setting priorities, timing, notifying authorities for: a. Areas to evacuate b. Movements and destinations c. Areas to receive 4. Prescribing uniform standards for: a. Classification of evacuees by: (1) Evacuation categories (2) Physical and mental fitness (3) Special (other) groupings b. Housing—room capacities, facilities c. Health, hygiene, sanitation services d. Medical inspections e. Immunizations 5. Providing: a. Uniform forms for: (1) Registration, identification (2) Medical inspection immunization
Reception (Non-target, non-industrial, agricultural, easily supported)	1. Provide evacuees: a. Housing b. Schools c. Health services d. Supplies e. Occupation f. Recreation g. Mental hygiene 2. Support: a. Evacuation areas b. National effort	1. Voluntary a. Private arrangement b. Public arrangement 2. Requisitioned or compulsory 3. Diversion by purchase 4. New construction or production	1. Resorts 2. Recreation areas 3. Urban areas—maximum housing 4. Established municipal administration 5. Readily accessible by rail, road 6. Readily expandable: a. Housing b. Health services	1. Designation of control agency for: a. Plans b. Operations 2. Designation of agencies for: a. Inventories for maximum resources: (1) Billeting—persons per house, room	

	3. Ease burdens of: a. Evacuation areas b. Parents c. Armed services d. Industrial workers 4. Develop and improve future generation		c. Welfare services d. Educational system 7. Maximum capacity for increasing: a. Food and water supplies b. Waste disposals c. Hygiene facilities d. Mass feeding	(2) Hygiene, sanitation (3) Education facilities (4) Health services (5) Feeding b. Assigning evacuees to: (1) Housing (2) Health services (3) Educational facilities (4) Messes c. Reception—detraining, inspections, sorting, deployment, movements 3. Establish permanent agencies for: a. Supervision b. Records c. Reports	(3) Travel (4) Feeding or rationing (5) Records and reporting by: *a* All areas *b* Parents (*others*) to authorities *c* Authorities to parents (*kin*) (6) Travel authorities 6. Allocating means—all functions to areas: a. Personnel b. Transport c. Medical and health services d. Immunizing materials e. Equipment and supplies f. Food g. Educational supplies h. Other materials, equipment, supplies
Neutral (Rural, reserve)	1. Stands 2. Prohibits movements in or out 3. Maintains reserve capacity	1. Contributory for: a. Attendants b. Transport c. Production d. Health services e. Teachers f. Supplies 2. Non-contributory	1. Urban, reserve capacity 2. Rural communities 3. Isolated areas 4. Distant areas 5. Unsatisfactory areas a. Specific cause b. Insufficient means c. Inadequate supervision	1. Aid authorities of: a. Evacuation areas b. Reception areas 2. Contribute material support 3. Prepare for evacuation or reception as directed	

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* Prepared May 1, 1950, by Colonel William L. Wilson, Medical Corps, U. S. Army.

† All areas are specifically designated by national authority and geographically grouped into regions

‡ Constitutes all from 6 to 15 years of age plus those who will become 6 (years) in the school year of registration

§ Pregnant women in 9th month moved directly, individually, rapidly to urban reception areas having proper means for their care

ROUTINE IMMUNIZATION PROCEDURES FOR INFANTS AND CHILDREN*

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The following immunization routines are presented as an over-all preference and are not to be considered the sole practicable means for inducing active immunity in children. They are workable, however, and are, at the time of this writing, in accordance with the latest developments in this field.

Active Immunization

Immunization against diphtheria, pertussis, and tetanus should be completed during the first year of life.

For routine usage† initiation of immunization at or after the third month of life is recommended with a slowly absorbed (alum-precipitated or aluminum hydroxide adsorbed) triple antigen mixture in dosage recommended by the manufacturer, 4 injections at intervals of 4 to 6 weeks being given. To minimize local reaction each dose is injected deeply into the lateral gluteal or deltoid area with a 25- or 26-gauge needle, $\frac{1}{2}$ to $\frac{5}{8}$ inch long. The introduction of a tiny bubble of air at the termination of the injection followed by prompt massage of the injection site has been recommended to reduce seepage. Care should be taken to avoid intravenous injection.

A routine booster dose of triple antigen is recommended 1 year after primary immunization and again at 4 and 6 years of age or at the time of entrance into nursery and public schools or camp. A booster dose of fluid tetanus toxoid is given at the time of a wound or injury from which tetanus infection might result. Booster injections of plain pertussis vaccine or fluid diphtheria toxoid may be given after definite exposure to these diseases. (After exposure to diphtheria a throat culture must be taken, no matter what the immune status may be.)

Smallpox vaccination may be performed at any time after the first week of life, preferably before the first birthday. Although early vaccination is advantageous because of the decreased severity of the constitutional reaction, it is urged that it be deferred until after some immunity to tetanus has been attained, despite the rarity of post-vaccinal tetanus. Vaccination should be repeated until a primary take occurs. It is best not done during hot weather. Eczema or other generalized skin eruption in the patient or a member of the household are definite contraindications to vaccination, except in the event of exposure to a case of smallpox. Revaccination is recommended at 5 or 6 years of age (time of entrance into school) and again at 12 years.

Primary immunization against scarlet fever, typhoid fever, and Rocky Mountain spotted fever may be given when specifically indicated in dosage recommended by the manufacturer. These are not recommended for routine use at this time, except in cases of children attending camps.

Skin Testing

A Schick test given 6 months after the primary immunization series will point out the occasional child who has not developed a protective titer of diphtheria antitoxin.‡ Following a negative Schick test further testing is considered unnecessary, provided routine booster injections are given.

Tuberculin tests are recommended at yearly intervals up to the age of 3 and every second year thereafter as indicated. An advantage in time is gained by such routine screening for tuberculous infection.

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* These recommendations of the Subcommittee on Child Welfare of the Medical Society of the District of Columbia are presented through the coöperation of the D. C. Section of the American Academy of Pediatrics as part of a campaign to improve the level of routine immunization in the District of Columbia.

† In special circumstances where exposure, particularly to pertussis, is deemed likely due to contact with older siblings or others, immunization may be attempted as early as the sixth week of life.

‡ Shick-positive children should receive additional doses of diphtheria toxoid and should be retested until rendered Shick-negative, or until considered incapable of being immunized (a rare occurrence).

PASSIVE IMMUNIZATION

For diphtheria, antitoxin (10,000 units) is given to the non-immunized who are exposed. Throat cultures should be taken before administration of the serum; if negative, antitoxin may be omitted. Subsequent active immunization is recommended.

For tetanus, antitoxin (5,000 units, at least) is administered promptly to the nonimmunized after an injury which might lead to tetanus infection. Subsequent active immunization is recommended.

For measles (Rubeola), human immune serum globulin is recommended for modification or prevention when indicated, methods and dosage recommended by the manufacturer being used.

For pertussis, human hyperimmune serum (20 c.c.) or human hyperimmune globulin (2.5 c.c.) is given promptly upon exposure of the nonimmunized infant to the infection.

Hospital Service Agency News

When the Community Chest Federation agreed to pay hospitals at higher rates, beginning in 1950, Hospital Service Agency knew that the total amount allocated for hospitals would be insufficient unless there was a decrease in the case load. Therefore, it became necessary for HSA to curtail the number of patients certified to receive financial assistance from the hospitalization fund. This fund includes the amount allocated by the Chest Federation and the net collections from the part-pay patients who are eligible for certification. The controls set up by HSA did not become apparent in terms of money payments to hospitals until June but it is of interest to physicians to note that the number of patients referred to private physicians increased from 90 in January to 126 in May.

Because of the normal decrease of illness requiring hospitalization in the summer months, less money was allocated by the Federation beginning in May. These reduced amounts, however, were more than sufficient to pay the hospitals in full during the months of June and July. These unused funds, approximately $10,000, will of course be needed to pay the larger claims expected during the later months of the year. As this is being written the hospitals have not been paid for services provided to HSA-certified patients during the month of August, but it appears that more than 75 per cent of the unused amount will be required in addition to the Federation's total allocation for that month. HSA endeavors constantly to administer its entire program in such a way as to accomplish full payment to hospitals and at the same time conserve the funds of the Community Chest Federation so that they will last throughout the calendar year for which they are budgeted. It also endeavors through its Medical Social Counselling of applicants to refer, for private care, all applicants whose economic circumstances permit them to obtain needed care as private patients from a physician of their own choice.

CORPORATE MEMBERSHIP ENLARGED

Throughout its existence HSA has functioned on a Metropolitan Area-wide basis. Before there was any Federation of Community Chests in the Metropolitan Area, HSA administered separate hospitalization funds for the Community Chests of Washington, Alexandria, and Fairfax County. Subsequently these separate funds became part of the Community War Fund allocation for hospitalization. There are now strong Community Chests also in Arlington County and Prince Georges County. Being a part of the Community Chest Federation the hospitalization funds of all of the chests are budgeted by the Federation instead of separately by each chest. In order to strengthen its continued functioning on a Metropolitan Area-wide basis, HSA has enlarged its Corporate Membership to include specific representation from Alexandria and the nearby counties. This enlarged membership, totaling 84, includes representatives from the medical and dental professions outside the District of Columbia. One third of the Corporate Members, formerly known as the Medical Group, is now known as the Medical-Dental Group of the District of Columbia. This group includes 21 physicians designated by the Executive Board of the Medical Society of the District of Columbia at its meeting on August 28, 1950, as well as 2 physicians designated by the Medico-Chirurgical Society, 4 dentists designated by the District of Columbia Dental Society, and 1 dentist designated by the Robert T. Freeman Dental Society. This group of 28 is matched by 28 members designated by the hospitals, and a third group of 28 representing the contributors of nearby counties and Alexandria. This last group includes 1 dentist and 5 physicians.

The Chest Federation Budgeting Process

The Federation Hospitalization Fund for 1951 was recommended by a subcommittee of the Federation Budget Committee consisting of 7 members. This group includes 2 physicians, Dr. Charles P. Cake and Dr. Katherine Symmonds. One of their meetings was held at HSA where they could see the organization at work. Present also was Mr. Charles E. Smoot, Chairman of the Federation Budget Committee; Mr. Gilbert L. Hall, President of Arlington Hospital; and Mr. Frank A. Birgfeld. Messrs. Hall and Birgfeld are members of HSA's Board of Trustees. Throughout its several sessions, the Federation Subcommittee made frequent reference to an editorial in MEDICAL ANNALS[1] which was written by Dr. Charles Stanley White. The Federation representatives believe that closer coöperation between the hospitals and the physicians along the line of Dr. White's practical suggestions may result in a decreased length of stay of many HSA-certified patients with the result that hospitalization will become less costly to the Community Chest and other contributed funds.

Seasonal Drop Exceeds Estimates

HSA has always experienced lower payments for hospitalization of certified patients during the summer months. The following table shows by months the number of people interviewed, the number of admission arrangements, clinic passes, and days of hospital care provided during the first 8 months of the current year. Included also are the number of referrals to private care.

	NO. PEOPLE SERVICED	NO. ADMISSION ARRANGEMENTS	CLINIC PASSES ISSUED	NO. REFERRED TO PRIVATE CARE	HOSPITAL DAYS AUTHORIZED
January	3034	473	947	90	5216
February	2403	283	737	127	3606
March	2808	373	817	136	4276
April	2503	346	757	133	4575
May	2523	227	714	176	3179
June	1972	172	509	138	2120
July	1924	148	556	122	2085
August	2048	224	567	131	3016

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[1] Editorial: M. Ann. District of Columbia, 1949, **18**, 647.

GEORGE WASHINGTON HOSPITAL AFFILIATES WITH EYE BANK

The George Washington University Hospital has become affiliated with the Eye-Bank for Sight Restoration, Inc., which collects, preserves and distributes healthy corneas from human eyes for transplanting to blind persons who have lost their sight because of corneal defects.

The Eye-Bank was incorporated in February 1945, and at present there are more than 150 leading hospitals throughout the country acting as depositors for this important work.

The major activity of the Eye-Bank is as a collecting center and distributing depot of healthy corneas to be used as clear windows for those damaged as the result of disease or accident.

In order to carry on its work, the Eye-Bank offers to qualified ophthalmologists the opportunity to learn the latest technics of corneal grafting. These courses include research in cases of blindness resulting from corneal diseases and work in pathology or tissue study—routine examinations are done as a diagnostic measure on all eyes received. Many of its graduates have been appointed as instructors and assist in the institution's research department.

Literature from the Eye-Bank for Sight Restoration, Inc., has informed the George Washington University Hospital that any cornea not affected by disease is needed.

The routine manner of donating eyes is to give to the next of kin a notarized form stating that on

(*Continued on page 600*)

Our Living Past Presidents

HARRY ATWOOD FOWLER, B.Sc., M.D., F.A.C.S., President, 1932–33

As a physician, the life of Dr. Harry Atwood Fowler has been one of outstanding accomplishment over many years. Public-spirited, he has been a definite asset to the community, contributing generously of his time and services. In his chosen field of medicine, genitourinary surgery, he is without a peer.

Dr. Fowler was born in Cambridge, Mass., September 22, 1872, the son of Joseph B. and Elizabeth Nancy Plummer Fowler. He attended the public schools of East Pittston, Maine, and the Kent Hill Preparatory School at LaCrosse, Wisconsin. In 1895 he received the degree of Bachelor of Science from the University of Minnesota. He enrolled for postgraduate study at the University of Chicago in the summer of 1897, and then went on to study medicine at Johns Hopkins Medical School, graduating in 1901. He interned at Johns Hopkins the following year, where he was associated with Dr. John W. Williams, author of the well known textbook on obstetrics, on a rotating service. During 1902–3 he was assistant to the great urologist, Dr. Hugh H. Young, and taught urology in the Dispensary.

Dr. Fowler moved to Washington, D.C. in the fall of 1903. During his first year in Washington he became a staff member at the Eastern Dispensary and established a department of urology at Casualty Hospital. He was appointed head of the department of urology at both Freedmen's and Emergency Hospitals, holding the latter position until his retirement in 1948. At the request of the District Health Officer, he established and equipped a clinic for the treatment of venereal diseases.

In 1932 Dr. Fowler became the 66th President of the Medical Society of the District of Columbia. The Presidential Address which he delivered before the Society on May 31, 1933 on "The Currents and Trends in Present-day Medicine" was one of his outstanding literary contributions. The passing of years has proved his utterances at that time to be prophetic and he himself a man of vision.

During the final illness of President Woodrow Wilson, Dr. Fowler and the late Dr. Sterling Ruffin served in consultation with the late Admiral Cary T. Grayson.

Dr. Fowler has limited his membership in scientific organizations to a few outstanding ones. He is a Fellow of the American Medical Association and the American College of Surgeons; member and Past President of the American Association of Genito-Urinary Surgeons; member (and once secretary) of the American Urological Association; and a member of the International Society d'Urologie. He is a member of the Phi Gamma Delta fraternity and of the Chevy Chase, Congressional and University Clubs. He is a Methodist and a Republican. For many years he maintained his office at Stoneleigh Court.

To his fellow members in the profession he has always been unusually courteous, generous, considerate and helpful. No one who has had the opportunity of working with him can fail to appreciate the dimensions of his character. He has inspired and trained many men. Of this number two are well known in this community, Dr. R. Arthur Hooe and Dr. Horatio N. Dorman. They are carrying on brilliantly where he left off.

Although an able speaker and writer, he has always been chary of displaying his talents. At medical meetings he only spoke when he had something constructive to suggest; he wrote only when he had something specific to contribute to medical literature. His writings in the field of urinary calculi are outstanding and involve what is recognized today as one of the most important etiologic factors, namely, type of infection.

On June 22, 1904 he was married to Mary M. Hahn. Mrs. Fowler is a member and Past President of the Woman's Auxiliary to the Medical Society. Over a period of many years she has taken an active and interested part in Auxiliary projects. Their son, Harry R. Fowler, is a partner in the building construction firm of R. W. Bolling and Company of Washington. There is one grandchild.

On October 1, Dr. Fowler moved from the Shoreham Hotel, where he had resided for the past 19 years, to the Quebec House; he will be pleased to have his friends call on him in his new home. During the last few years he has developed a keen interest in genealogy and has been able to trace his English ancestry through a number of generations. While enjoying the well earned fruits of a life of service to humanity, he maintains an active interest in current events and particularly in the spectacular advances of modern medicine.

WILLIAM P. HERBST, M.D.

MEDICAL SERVICES IN THE U.S.A.*†

A. LESLIE BANKS, M.A., M.D., F.R.C.P., D.P.H.

Barrister-at-law; Professor of Human Ecology, University of Cambridge

Perhaps the first impression that the traveller in the United States gains is that the people are very different from Europeans. To the Britisher in particular the mixture of races is surprising, and he finds it hard to realize that this heterogeneous mixture can have an "American" outlook. He learns speedily that it has. Whatever the country of origin the loyalty is first and foremost to the United States. Thus when a man with a middle European name says that "we were all cowboys a hundred years ago" he is in deadly earnest. The New York taxi-driver born in Bristol, or the negro red-cap at the railway station or airport, are equally sincere when they declare their fervent belief in the American Way of Life.

This emphasis on the American way of life can be intensely irritating to the European and also rather puzzling. It is a compound of a mystical element, which may take the place of tradition in older countries, and of sound business common sense. Americans know the value of money to the last cent and the American way of life means to them the right to work where they please and to sell their services to the highest bidder.

The days of the pioneer are not yet over. The growth of new industries during and since the War has meant that millions of people have travelled to new areas. For example, at least 3½ million, representing the greatest peacetime migration in the history of the world, have travelled to California within the last few years. Developments on the west coast are still proceeding, and these, and the enormous expansion of industry in other areas such as Texas, keep the pioneer spirit alive. Forty per cent of the population are said to be always "on the move."

Though the outlook is, first and foremost, American, these racial groups present problems with which we in this country are not familiar. Not only may they have sentimental attachments to the country of their origin but they also form social and political pressure groups which may be extremely powerful. It is said that in New York there are more Irishmen than in Dublin, more Scandinavians than in Scandinavia, and more Italians than in Rome. Ten per cent of the population of the States are negroes, and the proportion is much higher in some areas, including the industrial cities of the North. These minority groups may develop an intense interest in one aspect of a legislative program. For example, they might view a proposed bill from their own particular angle, and if they disliked some part of it they could bring tremendous pressure to bear on state and Federal legislators, together with the powerful machinery of publicity. Thus a bill introduced for one purpose might at the last moment have a clause introduced at the instigation of a pressure group which would alter its whole character.

Size and Organization

The next point to strike the visitor is the size and resources of the country. These are breath-taking to the Englishman, and it is an extraordinary experience to fly by night from, say, Los Angeles to New York. The distance is about 3,170 miles and the journey takes a little over 12 hours. For the whole of that time one is hardly ever out of sight of the twinkling clusters of stars representing towns and cities. A long journey by train is even more illuminating. Pessimists will say that the resources of the country are being used up so fast that they will be exhausted by 1970. It is true that vast areas of forest have been destroyed, that farm lands have been rendered useless by erosion, and that in the West and Southwest the problem of inadequate water-supplies is very serious. But these problems are being tackled in herculean style. The T.V.A. scheme is only one of the outstanding examples of this. In other areas irrigation plans involving the diversion of rivers to provide water-supplies for places hundreds of miles away are under consideration.

It takes a long time for the stranger to understand the Constitution and political organization of the United States. Historically the states came first, and they combined only reluctantly for the purpose of driving out the common enemy. Incidentally,

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* A lecture in a series entitled, "The Background of Medicine," forming part of the postgraduate courses arranged by Cambridge University Medical School. The observations were made during a visit to 18 university centers in the United States, made possible by the generosity of the Rockefeller and Nuffield Foundations.

† Reprinted from Lancet, 1950, **258,** 320.

Britishers should remember that, traditionally, they are that enemy. An elderly lawyer told me that he learned history by being taught to hate the British. Fortunately, it is now "ancient" history, but the effect has been that the states retain their sovereignty and are extremely jealous of the growth of Federal powers. Taxation is levied on the individual by the Federal Government but there may be, in addition, state, city and municipal taxation. The center of Federal Government is Washington, D. C. Washington is some 3,000 miles from California and about 1,500 miles from the rapidly expanding Southwest. On geographical grounds alone therefore there is justification for the fear of the more remote states that their problems may not be wholly understood in the legislative center and that money taken from their citizens by Federal taxation may come back "with strings attached to it" which are not applicable to local conditions. There are other reasons for anxiety. The heads of the civil service in the state and Federal service do not have security of tenure. They may change with the Governor or with the President. Again, in a country with a population of 140 million people the incentive to political success is so great that the actions of a politician may be governed by the desire for power. Indeed, part of the intense fear of "Socialism" and "Communism" (terms the meaning of which are little understood in the States) is due to the recognition that it would not be impossible for unscrupulous and ruthless men to seize power.

Another consideration little understood in this country is the effect of the last War. The American people entered the War with high ideals. They came out of it victorious and feeling that at last peace had been secured for the world. The effect of the continuing cold war has been to engender a sense of frustration and a growing feeling of insecurity. The Nation has been thrown into world leadership before it was ready for this. The combination of anxiety about the international situation, concern at the growth of Federal power, and the growing internal demands for social security explain much of the emotional reaction against things like "socialized medicine." No visitor to the United States can be there long without sensing this deep anxiety. Every man and woman in the States is also aware that America came out of the war 230,000 million dollars "in the red" and that the country is going deeper into the red—and this in spite of record prosperity. This money is being spent mainly on armaments and aid to foreign countries including Britain.

MEDICAL CARE: PRIVATE OR PUBLIC?

It is against this disturbed background that the organization of medical services must be studied. The practice of clinical medicine in the States is traditionally entirely a private matter between doctor and patient. Organized medical care is provided for veterans, the Indians, and the indigent, and also for patients with mental disorder, tuberculosis, and the infectious diseases. Outside these services the voluntary pattern familiar in this country before 1912 can still be recognized.

Perhaps the best indication of the changes in attitude since that time is given by the reactions of the American Medical Association. In 1912 the *Journal of the AMA* is reported as saying that:

> "The important feature of the British Act (the National Health Insurance Act of 1911) is the recognition that it is the duty of society, as represented by the government, to furnish medical treatment for those who are unable to secure it for themselves. It also means the recognition of the modern physician as a health officer of the state, working for the general good, rather than a private or professional business man."

In 1915 various community sickness surveys showed the inadequacy of medical care in the States, and the social insurance committee of the AMA reported that the logical conclusion was compulsory state insurance both for the benefit of the patient and "of the unfortunate physician facing starvation." In 1916 the committee was saying:

> "Blind opposition, indignant repudiation, bitter denunciation of these laws is worse than useless; it leads nowhere and it leaves the profession in a position of helplessness if the rising tide of social development sweeps over them."

By 1919 the effect of war prosperity was becoming apparent, and in 1920 the AMA declared its "opposition to the institution of any plan embodying a system of compulsory contributory insurance against illness." By 1922 this had hardened to opposition to all forms of state medicine. By 1924 government insurance had become "socialized medicine," "political medicine," "assembly-line medicine" and "peasant medicine." From then on the story is familiar to everyone. In 1929 government medical insurance was being described by the AMA writers as "Communism," in 1939 as "Nazism," and in 1949 again as "Communism." In April of last year the Chairman of the AMA's Board of Trustees described President Truman's medical insurance program as "the discredited system of decadent nations who are now living on the bounty of the American people."

Voluntary Medical Insurance

On the face of it therefore the issue would appear to be a straight one between the reaction of the AMA and the drive for compulsory health insurance by the President and his advisers. In fact it is nothing of the kind. There has been, over the past 20 years, an enormous extension of voluntary prepaid medical care schemes. For hospital care Blue Cross plans have expanded so rapidly that at least 40 million people are now covered, and a total of 60 million people are said to have some form of hospital coverage through the Blue Cross. The most significant development, however, has been the extension of group practice by the doctors to provide prepaid medical care. Some of these organizations grew out of the old despised contract practice. In spite of early opposition by the AMA, which described them as "medical soviets" and refused to give them the seal of recognition, these organizations have flourished exceedingly. Thus one county medical service corporation that I visited now has a 5-million-dollar business turnover. Its administrative organization would be the envy of any bureaucrat in this country, for it employs more than 100 clerks. Seven hundred doctors are employed on a fee-per-service basis to minister to 140,000 people. The control is entirely medical, with full-time medical and assistant directors. The governing body is composed of doctors who decide the fees to be paid to their colleagues, lay down conditions of service, and undertake disciplinary measures. In the words of the assistant director, "the docs police the docs and deal with the chisellers." Any doctor not conforming to the accepted pattern is put on probation and at the end of that time his contract may be terminated.

These organized medical services have disadvantages from the patients' point of view. They are not cheap. The corporation already described now requires a payroll deduction of $10 a month as opposed to $1 a month in 1933, and benefits are only available while the worker is in full employment.

There is no doubt that organizations of this kind are profitable to the doctors but there have also been developments on non-profit-making lines. Thus the Health Insurance Plan for Greater New York provides comprehensive medical care to workers and their families at home, at doctors' offices, at medical group centers, and in hospitals. H.I.P., as it is called, was established in March, 1947, to provide this all-inclusive medical care, without regard to age, for a fixed premium with no surcharges. It is a voluntary non-profit corporation licensed under the insurance laws of New York. This type of development can be seen elsewhere. Thus the *Los Angeles Times*, which would not scruple to bracket "socialized medicine" with Communism, has produced recently a benefit plan to provide insurance against costs of doctors' calls for employees and their dependents, the cost of diagnostic X-ray and hospitalization including surgery. Incidentally some indication of the care of this organization for its employees may be gathered from the concluding paragraph of the note to employees: "Probably as many questions will come to your mind as came to mine. The Personnel department will answer these and will be open until after midnight Tuesday, Wednesday and Thursday for convenience of those working nights. Your usual fine coöperation will be appreciated."

It is significant that the AMA now recognizes group practices with prepaid insurance as the "American way," provided of course that they are approved by the state medical societies.

Another factor has recently entered into the development of medical services, and that is the demands of organized labor. Recently the steel-workers struck. They were not asking for more money but for security. The fact that the strike was settled on the lines of Blue Cross hospital cover is worthy of note. The great trade unions are developing tremendous power. Steel-workers', mine-workers', and teamsters' unions now represent a potent force in demanding prepaid medical care. The international garment-makers' union already has a model health scheme.

Compulsory Insurance?

At the other extreme to the AMA is the compulsory health insurance favored by the President and his advisers, led by Mr. Oscar Ewing. This aims to provide medical care by taxation. Opposition to this "socialized medicine," as it is called, is growing and is likely to reach its peak during the presidential election year of 1952. The AMA, for example, has now burned its boats and entered openly the political arena. Dr. Fishbein has been replaced by professional lay organizers. In an article on "The Dogged Retreat of the Doctors," which appeared in *Harper's Magazine* last December, the following comment was made on the present methods:

> "Instead of trying to deodorize the AMA, the new promoters took it out and buried it. One hundred and forty thousand old family physicians arose in its place, all wearing beards, wing collars, high button shoes, and threadbare frock coats, all keeping an all-night vigil at the bedside of your curly-headed little child and mine. KEEP POLITICS OUT OF THIS PICTURE. 'The Doctor' never was a good painting, even in the Tate Gallery tradition. You may have seen it on your doctor's wall when you were young; it used to be distributed as an advertisement for Petrolagar. It made the doctor feel good. If Whitaker & Baxter (the promoters referred to) are right, it still does."

Although many people, lay and medical, deplore the AMA's entry into this field, there is widespread support for their opposition. The states are jealous of Federal power, and Big Business naturally fears the growth of Socialism.

What is the attitude of the man in the street? He is truly perplexed. He has to pay very heavily for medical care at a time when the costs of the necessities of life are rising. Railway and transport fares have recently been increased and food costs are rising including the price of coffee. In Harlem and The Bronx a three-roomed apartment may cost $40 a month and a visit by a physician $4 with another $3 or $4 for the prescription. This represents nearly £3 per visit at the present rate of exchange. On the west coast charges are higher. The first office call may cost $8 to $10, with $5 for subsequent visits. X-ray and pathological investigations may cost $20 to $25 extra. A simple doctor's bill may therefore be $40 to $50. Obstetrical costs range from $150 to $1,000, with extra charges in complicated cases. Some idea of the effects of these charges may be gained from the fact that a hotel booking-clerk with a gross salary of $3,000 a year had to pay $400 for his wife's confinement, $200 for the doctor's fee, and $200 for the hospital fee. An accountant developed tuberculosis, and all his savings, $6,000, went in one year. A university graduate student in history had to pay $100 before his infant daughter could be admitted to a hospital to be operated on for acute appendicitis. In another instance a patient, already stripped and prepared for operation, had to sign the check for the surgeon before he could be taken to the operating-theater. These are extreme examples, and it is true that voluntary prepaid medical care would have met these charges; but even so most of these schemes take no account of chronic illness. It is the common experience of the Montefiore Hospital in New York that patients with malignant disease have exhausted all the family savings before seeking the benefits of the hospital's home-care service.

The man in the street is therefore in favor of the principle of compulsory insurance. This was made clear time and time again in discussion with newspaper reporters, radio and television announcers, railway employees and the like. On the other hand, there would be full agreement with Mr. Micawber when he said, "Annual income twenty pounds, annual expenditure nineteen nineteen six, result happiness. Annual income twenty pounds, annual expenditure twenty pound ought and six, result misery." The American citizen knows full well that the addition of medical insurance to the social-security tax may make just that difference to the family budget.

THREE CHOICES

In conclusion it may be said that there are three alternatives facing the people of the United States in this matter. They are:

1. *The maintenance of the status quo.*—This is an impossibility because of the constant development of prepaid medical care schemes on a voluntary basis or compulsorily through the demands of organized labor. Attempts to do this would also disregard the heavy financial burden of chronic illness and above all would take no account of the disastrous economic effects of a business depression or slump.

2. *The introduction of a compulsory health service on the British pattern.*—This would be difficult if not impossible on administrative and geographical grounds. An attempt to enforce it would meet the full weight of opposition by the business men, quite apart from the AMA. It is doubtful whether the trade unions would be wholeheartedly in support, for their position vis-à-vis the Government is very different to that of trade unions in this country. The people themselves are unlikely to welcome such a revolution-

ary step. It is significant that Mr. Oscar Ewing is now reported as saying that "the British plan is totally unsuited for the U. S. In England the health service is part of a broad program to reorganize the basic social and economic structure of the country and eight-ninths of the cost comes out of the revenue. This is utterly foreign to the President's proposal which is strictly an insurance plan on a pay-as-you-go basis."

3. *A compromise between voluntary and compulsory health insurance.*—The analogy that would probably appeal most to the American people at the present time would be to say that the choice lies between a cheap motorcar with 100 per cent government insurance, so that the car can be knocked about, or a better car and make the individual user pay the first £5 insurance. On this principle Federal funds would be allocated on a matching or grant-for-grant basis and used by the states to build and equip new hospitals and to improve existing hospitals. State insurance would cover major illnesses and it would be left to the individual to provide his own cover for minor illness.

Developments along these last lines would satisfy nearly everyone and avert the dread of what are considered in the United States to be the basic weaknesses of the English scheme—namely, steeply rising expenditure on social services without individual incentive to save, and the lay and political control, or "socialization," of medicine.

THE HEAD AND NECK TUMOR SERVICE AT EPISCOPAL EYE, EAR AND THROAT HOSPITAL

ALFRED A. J. DEN, M.D.
JOHN H. GILLIGAN, M.D.
Episcopal Eye, Ear and Throat Hospital, Washington, D. C.

The case management of the cancer patient in any institution requires the coördination of many services in order to administer the best available care with a maximum efficiency and a minimum loss of time. This is also a necessary prerequisite for a successful resident training program. Aware of the above premises and wishing to achieve this objective, the Medical Board of the Episcopal Eye, Ear and Throat Hospital, Washington, D. C., directed the formation of a head and neck tumor service to be responsible for the specific care and treatment of these cases. The integration of medical, surgical, radiologic, and pathologic services as the basic components of any tumor service is in line with the best thinking in this cancer-conscious era. Other specialties may be added depending on the anatomic system involved. This group effort contains and offers the best judgment in the diagnosis and treatment of malignant disease. In our hospital we are chiefly concerned with malignant lesions of the eye, ear, nose, throat, oral cavity, larynx, salivary glands, and sinuses. The primary intracranial tumors are not treated and are referred to a neurologic service elsewhere.

Organization

The Head and Neck Tumor Service is divided into two distinct parts, the Tumor Board, and the Tumor Clinics.

The Tumor Board consists of nine members and exercises final executive authority over all cases with regard to diagnosis and specific management of each case. It is responsible only to the Medical Board of the hospital. The members are:

Dr. J. Gordon Bell—Plastic Surgeon
Dr. Ralph M. Caulk—Radiation Therapist
Dr. Alfred A. J. Den (Secretary to the Board)—Roentgenologist
Dr. John H. Gilligan—Otolaryngologist
Dr. Calvin T. Klopp—Oncologist
Dr. Harold Krogh—Oral Surgeon
Dr. Daniel B. Moffett (Chairman of the Board)—Otolaryngologist
Dr. M. Noel Stow—Ophthalmologist
Dr. Theodore Winship—Pathologist

This Board also emerges as a discussion group, and physicians, medical students and residents are cordially invited to attend. It meets every Friday, 1:00 to 2:00 p.m., and all cases are formally presented to the Board by one of the hospital residents. Recommendations of the clinic physicians are stated and this is followed by a discussion of all the aspects of the case by the Tumor Board. Examination of the patient, review of the biopsy slides, X-ray films, and so forth, are available. Each member of the Board has one vote, and at the conclusion of the case discussion a vote of the Board is taken on the diagnosis and treatment in the presented case. A majority vote rules, and all votes are specifically recorded.

In arriving at decisions in each case in the above manner, the well-meaning but biased influence of individuals toward radical or conservative procedures is minimized to a negligible degree so that the best treatment based on sound principles is prescribed. These proceedings are recorded by the stenographer and this record is incorporated with the patient's permanent clinical record. Discussion is on a postgraduate level, and teaching of the resident house staff and education of the attending physicians for the benefit of the patient is one of the prime functions of such a board.

Once a patient has been presented the Board assumes a certain responsibility for following his progress, if it is to properly fulfill its function as a teaching and an investigative source for analysis of the successes or failures of various types of treatment; it is only by follow-up that we may evaluate the handling of cases and thereby add to our knowledge and experience. From time to time the Board will review the material and present it at the regular staff conferences for wider assessment and criticism. The chairman of the Board conducts the meeting and is the official spokesman for the group. The secretary arranges the agenda for each Board meeting and supervises the record system. The recording stenographer is responsible for keeping the records up to date, consolidation of the clinic and hospital charts, pathologic indexing of cases, and the following-up of all patients. This person is an important part of the Clinic and Board because, if efficient, she takes away much of the laborious and detailed work from the physicians, leaving them free to devote their time to the professional aspects.

There are two separate tumor clinics, one for the eye and the other for the ear, nose, and throat structures. The clinics have a permanent working staff, assisted by the hospital residents, and are held separately, although on the same day and at the same time weekly because of the overlapping of many lesions. Thus joint consultations are readily available, and this saves scheduling a future appointment. All patients seen in the general clinics in which tumor is suspected or diagnosed are referred by appointment to the respective special tumor clinic for a complete diagnostic study. Biopsy is accomplished if the clinic physicians are reasonably certain that no deleterious effects will follow. If they are in doubt, or if there is an obvious contraindication, the decision of biopsy is left to the Tumor Board. The Tumor Board will observe the conduct of the clinic physicians in respect to biopsies, and, if there should be any unsound or radical trends, they can easily correct them without embarrassment or personality conflicts. As part of the complete workup of these tumor cases an evaluation by internists of the general physical condition of the patient is obtained and recorded. We consider this latter opinion as vitally important in determining the merits of various types of treatment that may be proposed.

When the Tumor Clinic physicians have completed the diagnostic survey, the case is formally presented to the Tumor Board by one of the hospital residents. Private physicians are warmly encouraged to present their private cases to the Board for their considered opinion. In such cases the private physician presents the case and automatically becomes a voting member and thereby actively participates in the discussion and outcome. Such a relationship between the Board and the private doctor creates an atmosphere of welcome and gives him, for the benefit of the patient, a group opinion without added expense to the patient. The Tumor Clinics, as described above, are free of patients who are presenting themselves for routine examination, since these are diagnostic and treatment services and not cancer detection stations. The screening takes place in the general clinics in the hospital.

The expense of the above Tumor Service is borne entirely by the hospital, and there is no extra charge to the indigent or paying patient. With 18 to 20 per cent of all malignant growths in the body occurring above the clavicle, the otolaryngologist should be qualified to perform surgical procedures in that field by reason of being more familiar with this area. In the field of resident training the hospital is offering to the future otolaryngologist surgical training in this expanding field of major surgery,

(*Continued on page 600*)

News and Personals

The Fourth Clinical Session of the American Medical Association will be held in Cleveland, December 5–8. The scientific sessions and the scientific and technical exhibits will be presented in the Cleveland Municipal Auditorium. Members of the House of Delegates will meet at the Hotel Statler. The interim meetings of the AMA are planned primarily for the general practitioner.

The Council on Postgraduate Medical Education of the American College of Chest Physicians is sponsoring a Postgraduate Course in Diseases of the Chest, which will be held at the Hotel New Yorker, New York City, November 13–18.

Dr. J. Winthrop Peabody, of Washington, Chairman of the Council, will be moderator at the morning session, November 13, and will open the meeting.

Tuition for the course is $50. Applications will be accepted in the order in which they are received as registration is limited. Address all inquiries and applications to the Council on Postgraduate Medical Education, 500 North Dearborn Street, Chicago 10, Illinois.

The 36th Clinical Congress of the American College of Surgeons will convene in Boston, October 23–27. Headquarters will be at the Hotel Statler. Dr. Paul R. Hawley, Director of the College, will give the Fellowship Address on the final evening, October 27. His subject will be "Quo Vadimus?"

The American Goiter Association again offers the **Van Meter Prize Award** of $300 and two honorable mentions for the best essays submitted concerning original work on problems related to the thyroid gland. The Award will be made at the annual meeting of the Association, which will be held in Columbus, Ohio, May 24–26, 1951, providing essays of sufficient merit are presented in competition.

The competing essays may cover either clinical or research investigations; should not exceed 3,000 words in length; must be presented in English; and a typewritten, double-spaced copy in duplicate sent to the Corresponding Secretary, Dr. George C. Shivers, 100 East St. Vrain Street, Colorado Springs, Colorado, not later than March 1, 1951.

The prize-winning essay will be published in the annual Proceedings of the Association.

The Board of Regents of the **American College of Chest Physicians** offers a **cash prize award** of $250 to be given annually for the best original contribution, preferably by a young investigator, on any phase relating to chest disease. The award, together with a certificate of merit, will be made at the forthcoming annual meeting of the College to be held in Atlantic City, New Jersey, June 7–10, 1951.

Five copies of the manuscript, typewritten in English, should be submitted to the Executive Officer of the College, 500 North Dearborn Street, Chicago 10, Illinois, not later than April 1, 1951. The manuscript should bear a nom de plume on the title page and should be accompanied by a sealed envelope enclosing the name of the author or authors.

The winning essay will be published in the official publication of the College, *Diseases of the Chest.*

Diabetes Week is scheduled for November 12–18. Diabetes Week, which spearheads a continuing national Diabetes Detection Drive, is aimed this year at business and industrial establishments in order to discover hidden diabetics among employees and bring them to physicians for treatment. The American Diabetes Association has prepared a special article, directed to individual employees, which is designed for use in company publications and those of labor organizations. Copies of this article may be obtained upon application to the Association's New York Office, 11 West 42nd Street.

Dr. John A. Reed, of Washington, is Chairman of the 1950 Diabetes Detection Drive.

The Executive Board of the Medical Society of the District of Columbia called a special meeting, August 23, in the interests of national security, for the purpose of appointing a Committee on Military Affairs. Physicians selected for this important committee were: Dr. G. Victor Simpson, *Chairman*, Dr. A. Magruder MacDonald, *Vice Chairman*, Dr. Don S. Knowlton, and Dr. Maurice Selinger. Dr. John Sinclair Perry, President of the Medico-Chirurgical Society of the District of Columbia, will also serve on this committee, representing his organization.

At the meeting of the Executive Board, August 28, President Ballinger submitted the names of the following physicians to serve as representatives of the Society to the Hospital Service Agency: Drs. Frank S. Bacon, E. Herbert Bauersfeld, Harry S. Bernton, Charles J. Bowne, Leo T. Brown, Henry Lynn Colvin, Karl C. Corley, Maurice Friedman, James A. Gannon, Jr., Milton L. Goldman, Luther W. Gray, Clayton H. Hixson, Oscar B. Hunter, Sr., Elizabeth Kittredge, David H. Kushner, Henry C. Macatee, W. Cabell Moore, Margaret Mary Nicholson, Leo Brison Norris, John A. Reed, and John U. Schwarzmann.

The Board approved the list of representatives appointed by Dr. Ballinger.

The First Regional Meeting of the Council on National Emergency Medical Service of the American Medical Association was held at the Hotel Statler, Washington, July 29, 1950. The meeting was called by the Chairman, Dr. James C. Sargent, of Milwaukee.

Medical representatives from Washington who participated in the meeting were: Dr. Raymond T. Holden, of the Medical Society's Executive Board; Dr. William D. Claudy, Vice Chairman of the Committee on Emergency Medical Service of the Washington Metropolitan Area; Theodore Wiprud, Secretary of the Medical Society; Dr. Herbert P. Ramsey, member of the AMA Committee on Blood Banks; and Dr. John Sinclair Perry, President of the Medico-Chirurgical Society of the District of Columbia.

The District Division of the American Cancer Society held a preview of the film, "Breast Self-Examination," for field workers, interested clubwomen, and public relations personnel at the Medical Society's auditorium, August 31. Dr. Ernest A. Gould gave a brief talk before the film was presented and answered questions following the showing.

The film was produced by the American Cancer Society and the National Cancer Institute of the Public Health Service. The film, its projector and operator, and a volunteer physician to answer questions, will be supplied by the District Cancer Society at the request of adult women's organizations. The service is free.

Dr. William M. Ballinger, President, and **Theodore Wiprud**, Secretary, of the District Medical Society, were invited to confer with Lt. General James A. VanFleet, Commanding General of the Second Army, regarding the mobilization of Washington physicians for active duty with the armed forces. The conference was held on August 17 at Second Army Headquarters, Fort George G. Meade, Md.

Colonel Harold W. Glattley, Second Army surgeon, asked that the Medical Society representatives form committees to set up priorities for the recall of medical reservists to active duty by October 6.

Others who attended the meeting at Fort Meade were Dr. Austin Pearre of Frederick, Md., President of the Medical and Chirurgical Faculty of the State of Maryland; Dr. Powell Williams, Chief of Medicine, McGuire General Hospital, Richmond, Va., and Henry S. Johnson, Public Relations Director, Virginia State Medical Society.

Dr. Daniel L. Seckinger will henceforth be known as **Director of Public Health** instead of District Health Officer. This change in title became effective September 1 under a law passed by Congress.

The law also states that the Assistant Health Officer of the District shall be known as the **Assistant Director of Public Health.** This position is now held under an interim appointment by **Dr. Arthur E. Cliff.**

Dr. Rolla E. Dyer, Director of the National Institutes of Health, retired, October 1, under the mandatory age retirement requirements of Public Health Service, after spending 34 years in the Service, the last eight as Director of the Institutes.

He has received international recognition for his research on infectious diseases, particularly those on typhus, Q- and Rocky Mountain spotted fevers.

Dr. Dyer has accepted a new appointment in the field of medical research, that of Chief Coördinator of Medical Research at Emory University School of Medicine, Atlanta, Georgia.

Dr. Rudolph Depner will become Superintendent of the **District Training School for Feeble-minded,** Laurel, Md., November 1, succeeding Dr. Kenneth B. Jones, who is resigning the position.

Dr. Depner is now Superintendent of the State School at Buckley, Washington. He received his degree in medicine from Duke University. From 1935 to 1945 he served with the New York State Mental Hygiene Department in numerous capacities. Then, for three years, he was Superintendent of Laconia (N.H.) State School and for one year was senior physician in charge of continued treatment service, Worcester (Mass.) State Hospital.

Mrs. William M. Ballinger, President of the Woman's Auxiliary to the Medical Society of the District of Columbia, has appointed the following members as chairmen of committees for 1950–51:

Membership: Mrs. Francis J. O'Bryan
Ways and Means: Mrs. George J. Stuart
Program: Mrs. G. Louis Weller, Jr.
Social: Mrs. John Edward Morris
Publicity: Mrs. Herbert H. Schoenfeld
House: Mrs. David M. Nolan
Public Relations: Mrs. Richard H. Todd
Philanthropic: Mrs. Jerome A. Sansoucy
Education: Mrs. Jonathan M. Williams
Today's Health: Mrs. Harry F. Anderson

Mrs. Edward L. Morris will serve as Parliamentarian.

Dr. F. Daniel Suttenfield was the delegate of the American Geriatrics Society to the National Conference on Aging, held at the Shoreham Hotel, August 13–15.

Dr. Suttenfield has been invited to address the 25th Scientific Session of the International Spanish Speaking Association of Physicians at the Waldorf Astoria, New York, November 24, when a Symposium on Geriatrics will be presented.

Dr. Edwin S. Kessler has been appointed Director of the **Washington Institute of Mental Hygiene,** succeeding Dr. William L. Granatir, who resigned to enter private practice in Washington. Dr. Kessler has been a member of the staff of the Menninger Foundation at Topeka, Kansas.

Dr. J. DeWitt Fox, Editor of *Life and Health,* a health journal for laymen, recently was awarded the degree, Licentiate of the Medical Council of Canada, by examination.

Several members of the District Medical Society have moved away from Washington.

Dr. Henry R. Lyons is out of the city temporarily, taking a three-year fellowship at the Mayo Clinic in Rochester.

Dr. William V. Hare is now Professor of Pathology at the University of Mississippi.

Dr. Byron A. Nichol moved to Oklahoma in June 1949 and is living in Fort Sill.

Dr. A. E. Drexel has opened an office in Miami, Florida, where he is specializing in obstetrics and gynecology.

Drs. Hare, Nichol and Drexel have resigned their membership in the Society.

BOOK REVIEWS

The 1949 Year Book of Medicine (July, 1948–May, 1949), edited by Paul B. Beeson, M.D.; J. Burns Amberson, M.D.; George R. Minot, M.D., S.D., F.R.C.P. (Edinburgh and London); William B. Castle, M.D., S.M. (Hon.) Yale, M.D. (Hon.) Utrecht; Tinsley R. Harrison, M.D.; and George B. Eusterman, M.D. Pp. 831. Chicago: Year Book Publishers, 1949.

Once again the Yearbook of Medicine presents a concise review of much of the literature of the previous year. Again the book is divided into sections on infections, the chest, the blood and blood-forming organs and the kidney, the heart and blood vessels, and the digestive system. Each section is edited by an outstanding authority in the field.

The section on infection includes articles on the newer antibiotics in relation to both laboratory studies and clinical use. A good selection of articles on recent advances in treatment of the acute infectious diseases is included. Hench's early articles on ACTH are well summarized.

The section on the chest includes articles on physiology as well as articles in relation to particular diseases. A number of articles on the use of streptomycin alone and in conjunction with PASA are reviewed. Several of the articles on PASA are from foreign sources and would not be otherwise available to the average reader.

The section on the blood and blood-forming organs and the kidneys is very complete. The group of articles on sickle cell anemia is excellent. Articles on the use of B_{12} are included. Articles reviewing the use of nitrogen mustard, urethane, folic acid antagonists, and other new chemotherapeutic agents in the treatment of blood dyscrasias are also presented.

In the section on the heart and blood vessels there is an excellent review of newer advances in surgical treatment of congenital heart disease. The remainder of the section includes a number of practical articles. The section on peripheral vascular disease includes a number of articles on newer diagnostic procedures and treatments.

The section on the digestive system includes many articles pertaining to the problem of duodenal ulcer. Several new adjuncts in treatment are discussed.

This Yearbook serves several purposes. It permits a rapid résumé of various fields of medicine for the busy practitioner who cannot possibly keep up with a similar number of original articles. It serves as a source of reference for those interested in pursuing some particular subject. Its index by both subject matter and author is very helpful, and lastly, many of the editorial comments about individual articles are more informative than the article itself.

MORRIS H. ROSENBERG, M.D.

Current Therapy 1950—Latest Approved Methods of Treatment for the Practicing Physician, edited by HOWARD F. CONN, M.D. Consulting Editors: M. Edward Davis, Vincent J. Derbes, Garfield G. Duncan, Hugh J. Jewett, William J. Kerr, Perrin H. Long, H. Houston Merritt, Paul A. O'Leary, Walter L. Palmer, Hobart A. Reimann, Cyrus C. Sturgis, Robert H. Williams. Price, $10.00. Pp. 736. Philadelphia: Saunders, 1950.

The editor notes in the preface that extensive revision of last year's edition has been made. Sixteen new subjects have been added and the section on Infectious Diseases revised to include the latest advances in chemotherapy.

The inclusion of more than one author's plan of treatment in controversial cases has been continued. This is a worthwhile feature of the book. A comprehensive index is afforded which makes it very easy to locate different subjects. As one might expect from reviewing the list of contributors, little fault can be found with the methods of treatment.

This volume is highly recommended, especially to general practitioners, since it outlines authoritative treatment for a wide variety of diseases.

JOHN J. CURRY, M.D.

The Practice of Medicine, 5th ed. JONATHAN CAMPBELL MEAKINS, C.B.E., M.D., LL.D., D.Sc., formerly Professor of Medicine and Director of the Department of Medicine, McGill University; formerly Physician-in-Chief, Royal Victoria Hospital, Montreal; formerly Professor of Therapeutics and Clinical Medicine, University of Edinburgh; Fellow of the Royal Society of Edinburgh; Fellow of the Royal Society of Canada; Fellow of the Royal College of Physicians, London; Fellow of the Royal College of Physicians, Edinburgh; Honorary Fellow of the Royal College of Surgeons, Edinburgh; Fellow of the Royal College of Physicians, Canada; Fellow of the American College of Physicians; Honorary Fellow of the Royal Society of Medicine. Price, $13.50. Pp. 1558, with 518 illustrations, including 50 in color. St. Louis: Mosby, 1950.

The printing, paper, illustrations, and general organization are excellent. A book of 1,558 pages usually is not light; this one is uncomfortably heavy, but the durability of the paper compensates for this.

The chief criticism of this book refers to its chapter on Chemotherapy and Antibiotics and would probably apply to any current texts in lesser or greater degree. Current therapy with sulfonamides, penicillin, aureomycin, streptomycin and chloromycetin has been crowded into a single chapter of seventeen pages with little or no mention being made of these drugs under discussions of therapy of specific infectious diseases. Such arrangement was purposeful on the part of the author to save space and emphasize the rapidity of change of therapy of infectious diseases; unfortunately, however, unnecessary space was given outmoded and irrational therapy in some cases and newer therapy neglected. For example, under ulcerative stomatitis no mention is made of sulfonamide or antibiotic therapy while local and intravenous arsphenamine and other drugs are recommended. Other criticisms include the stress on dissimilarity rather than similarity between scarlet fever and streptococcus sore throat. The antibiotic therapy of psittacosis with aureomycin and chloromycetin is omitted on page 225. By contrast, on page 226 aureomycin is said to be of value in atypical pneumonia whereas this now appears doubtful according to Smadel. But this probably only emphasizes again the rapidity of change in this field. On page 6 erythema nodosum is given as a significant manifestation of tuberculosis, which is probably not accurate, for the United States at least. On page 599 this statement is met with: "Anorexia nervosa is a complete distaste for food often met with in young women. . . ." Though the author may have meant that anorexia nervosa appears more frequently in young women than in other people, the statement might mislead neophytes. Moniliasis is discussed in one section as Candida Albicans and in another as Oidium Albicans; monilial stomatitis is called "parasitic stomatitis," an accepted but not an accurately descriptive term. On page 654 some outmoded and inaccurate synonyms for appendicitis are given: typhlitis, perityphlitis, cecitis. X-rays are reversed in some places so that radiodense areas appear to be radioluscent. On page 704 Ankylostoma Braziliense is discussed along with Necator Americanus and Ankylostoma Duodenales, inferring that the manifestations of A. Braziliense are the same as the two human hookworms and require the same therapy. In addition, the therapy of hookworm is said to be the same as for oxyuriasis, namely gential violet, which is not usually accepted as the best therapy.

This book is excellent in its sections on lung diseases and respiratory physiopathology. The sections on psychosomatic medicine, neurologic diseases, metabolic diseases, endocrine diseases and kidney diseases have been written by collaborators and are good.

This book is a necessary addition to libraries of medical schools, hospitals, and medical societies. Several other current texts of medicine appear to the reviewer to be better for medical students. And in the reviewer's opinion, medical students beyond the third year and practicing physicians can study journals and monographs to better advantage than most, if not all, medical texts.

ELBERT T. PHELPS, M.D.

A Text-Book of X-ray Diagnosis by British Authors in Four Volumes. Volume IV, 2nd ed., edited by S. COCHRANE SHANKS, M.D., F.R.C.P., F.F.R., Director, X-ray Diagnostic Department, University College Hospital, London; AND PETER KERLEY, M.D., F.R.C.P., F.F.R., D.M.R.E., Director, X-ray Department, Westminster Hospital; Radiologist, Royal Chest Hospital, London. Price, $15.00. Pp. 592, with 553 illustrations. Philadelphia: Saunders, 1950.

Radiologists and other physicians interested in the X-ray diagnosis of diseases of the skeletal system will welcome the appearance of this, the first of four volumes, of a new edition of the familiar "British Authors." The first edition of this work represented one of the finest reference works on roentgen diagnosis in the English language.

The subject matter has been divided according to broad pathological groupings. Excellent sections on the normal bones and joints and the general pathology of bone are included, with their radiologic correlation. The bibliography at the end of each chapter is quite adequate and up-to-date.

The illustrations, as in many of the European texts and journals, are in reversed tones, which, to individuals accustomed to seeing them in the same values as in the X-ray films, is objectionable. Aside from this, they are quite well reproduced and of good size.

As a reference text, the book is highly recommended.

GEORGE TIEVSKY, M.D.

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interests of our readers and as space permits. Physicians are urged to submit reviews of additional current books which, in their opinion, merit comment.

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association with the Comments that Have Appeared in the *Journal of the American Medical Association*, 1949. Pp. 231. Philadelphia: Lippincott, 1950.

Freud: Dictionary of Psychoanalysis, edited by NANDOR FODOR, Associate of the Association for the Advancement of Psychotherapy, AND FRANK GAYNOR, co-author of the "Dictionary of Industrial Psychology," with a Preface by Theodor Reik, author of "Listening with the Third Ear." Price, $3.75. Pp. 208. New York: Philosophical Library, Inc., 1950.

Principles of Intensive Psychotherapy. FRIEDA FROMM-REICHMANN, M.D. Price, $3.75. Pp. 246. Chicago: University of Chicago Press, 1950.

Physician's Handbook, 6th ed. MARCUS A. KRUPP, M.D., Assistant Clinical Professor of Medicine, Stanford University School of Medicine; Director, Clinical Pathology, Veterans Administration Hospital, San Francisco; NORMAN J. SWEET, M.D., Assistant Professor of Medicine, University of California School of Medicine, San Francisco; ERNEST JAWETZ, PH.D., M.D., Associate Professor of Bacteriology and Lecturer in Medicine and Pediatrics, University of California School of Medicine, San Francisco; AND CHARLES D. ARMSTRONG, M.D., Clinical Instructor in Medicine, Stanford University

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School of Medicine. Price, $2.50. Pp. 380. Palo Alto, Calif.: University Medical Publishers, 1950.

Eyes and Industry, 2nd ed. (formerly "Industrial Ophthalmology"). HEDWIG S. KUHN, M.D., Industrial Ophthalmologist, Hammond, Indiana. Price, $8.50. Pp. 378, with 151 illustrations and 3 color plates. St. Louis: Mosby, 1950.

Techniques in British Surgery, edited by RODNEY MAINGOT, F.R.C.S. Price, $15.00. Pp. 733, illustrated with 473 figures. Philadelphia: Saunders, 1950.

The Rhesus Danger—Its Medical, Moral and Legal Aspects. R. N. C. McCURDY, M.B., Ch.B., D.P.H. Pp. 138. London: William Heinemann, 1950.

New and Nonofficial Remedies Containing Descriptions of the Articles Which Stand Accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1950. Issued under the direction and supervision of The Council on Pharmacy and Chemistry, American Medical Association. Pp. 800. Philadelphia: Lippincott, 1950.

Cerebral Palsy. JOHN F. POHL, M.D., Orthopedic Surgeon, Michael Dowling School for Crippled Children, Minneapolis, Minnesota. Price, $5.00. Pp. 224, with 131 illustrations. St. Paul, Minn.: Bruce, 1950.

A Text-Book of X-ray Diagnosis by British Authors in Four Volumes. Volume IV, 2nd ed., edited by S. COCHRANE SHANKS, M.D., F.R.C.P., F.F.R., Director, X-ray Diagnostic Department, University College Hospital, London; AND PETER KERLEY, M.D., F.R.C.P., F.F.R., D.M.R.E., Director, X-ray Department, Westminster Hospital; Radiologist, Royal Chest Hospital, London. Price, $15.00. Pp. 592, with 553 illustrations. Philadelphia: Saunders, 1950.

Plastic and Reconstructive Surgery—A Manual of Management. FERRIS SMITH, M.D., F.A.C.S., Consultant in Plastic Surgery, Blodgett Memorial Hospital, Grand Rapids, Michigan. Price, $15.00. Pp. 895, with 592 figures. Philadelphia: Saunders, 1950.

The Management of Obstetric Difficulties, 4th ed. PAUL TITUS, M.D., Obstetrician and Gynecologist to the St. Margaret Memorial Hospital, Pittsburgh; Consulting Obstetrician and Gynecologist to the Shadyside Hospital, Pittsburgh; Secretary of the American Board of Obstetrics and Gynecology; Member, Reserve Consultants Advisory Board, Bureau of Medicine and Surgery, United States Navy (Captain, MC, USNR). Price, $14.00. Pp. 1046, with 446 illustrations and 9 color plates. St. Louis: Mosby, 1950.

EDWARD ELLIOTT RICHARDSON, M.D., B.S., M.S., Ph.D.

(1873–1950)

Dr. Edward E. Richardson, widely known clergyman and educator as well as physician, died, July 17, 1950, at his home, 3214 Tenth Place, S.E. He was Pastor Emeritus of the Congress Heights Baptist Church, of which he had been pastor for 30 years, and Professor Emeritus of George Washington University since 1938, having been instructor and professor in the Department of Philosophy for 30 years.

Born in Rockingham, Vermont, February 19, 1873, Dr. Richardson was the son of Marshall A. and Sarah Stowell Richardson. He graduated with first honors from the Military Department of the Vermont Academy, Saxtons River, Vt., in 1892, and planned a military career. However, a bad left arm kept him from his commission.

He came to Washington in 1892 to study medicine at Columbian College, now George Washington University, and received his medical degree in 1895. From 1895 to 1899 he was on the staff of the District Health Department as Physician to the Poor. He was on the staff of George Washington University as Prosector to the Chair of Anatomy, 1897–99, and as Assistant Demonstrator of Anatomy, 1898 to 1908. He was a general practitioner in Southwest Washington for 17 years, but during those years he continued his studies at George Washington University, receiving in succession the degrees of B.S. (1904), M.S. (1905), and Ph.D. (1907).

He studied for the ministry at Crozier Theological Seminary, Chester, Pa., and became pastor of the Congress Heights Church in 1913. He retired in 1943. He was the author of several books on religion and philosophy.

Dr. Richardson was a Life member of the Medical Society of the District of Columbia, his membership dating back to 1902 in the old Medical Association and to 1904 in the Medical Society. He was a member of the American Medical Association and the

Association of American University Professors. He headed the Congress Heights Citizens' Association for 18 years. From 1911 to 1924 he was President of the Central Union Mission. For 40 years he was President of the Society for Philosophical Inquiry.

Surviving are his wife, Mrs. Grace D. Potter Richardson, formerly of Rutland, Vt.; a son, Edward M. Richardson, and two grandchildren, of Washington.

FRED YATES WILLIAMSON, Ph.G., M.D.

(1894–1950)

Dr. Fred Y. Williamson, general practitioner and a member of the Board of Police and Fire Surgeons for the past 25 years, died unexpectedly, August 19, 1950, at his home, 3619 Legation Street, N.W.

Born in Cerro Gordo, North Carolina, February 6, 1894, he was the son of Johnson Lee and Cora Lee Williamson. After attending public schools in Cerro Gordo, he studied pharmacy at the Medical College of Virginia, Richmond, graduating in 1913. Two years later he decided to study medicine; he took his premedical schooling at the University of North Carolina and then came to Washington, D. C. to enroll at George Washington University School of Medicine. He received his degree in medicine in 1921 and interned at the University Hospital.

Dr. Williamson was one of nine physicians on the Police and Fire Surgeons Board and was also physician to Western Union Telegraph Company. He had courtesy privileges at Emergency, George Washington and Doctors Hospitals. His office was located at 1835 Eye Street, N.W.

A veteran of World War I and a member of the Medical Reserve Corps of the Army for ten years, he also served during World War II as an examiner for Selective Service Board No. 13.

He had been an Active member of the Medical Society of the District of Columbia since 1923. He was a Fellow of the American Medical Association and a member of the George Washington University Medical Society. His fraternal organizations included the Masonic Lodge and Woodmen of the World.

Surviving are his wife, Mrs. Elizabeth Louise Cunningham Williamson, and two children, James Yates and Elizabeth Ann, residing at home; a brother, Dr. Howard Williamson, dentist, of Alexandria, Virginia; and a sister, Mrs. Eva Townsend, Fair Bluff, North Carolina.

HENRY WALPER KEARNEY, M.D.

(1874–1950)

Dr. Henry W. Kearney, well known anesthesiologist, died, August 3, 1950, at his home at 1436 Longfellow Street, N.W., following a long illness. He had retired from practice in 1939.

Dr. Kearney was born, August 29, 1874, in Shepherdstown, West Virginia, the son of Henry Walper and Margaret Beavers Allen Kearney. He graduated from George Washington University School of Medicine in 1907 and interned at Garfield Memorial Hospital, where he was long a member of the staff. For many years he was also anesthetist on the staff of George Washington University Hospital.

Dr. Kearney was a Life member of the District Medical Society, having retained Active membership since 1908. He was a Fellow of the American Medical Association and a member of the Southern Medical Association, the Southern Society of Anesthetists, the Regional Society of United States and Canada Anesthetist Associations, and the Hippocrates-Galen Society. He was a member of the Sixth Presbyterian Church.

His wife, Mrs. Sadie H. Kearney, survives him, together with four sisters, Mrs. Wilmer P. Johnston, College Park, Md.; Mrs. E. C. Pettit, Norfolk, Va.; and the Misses Katharine and Blanche Lee Kearney, of Washington.

GEORGE W. HOOVER, A.B., M.S., M.D.

(1876–1950)

Dr. George W. Hoover, who helped write the present Food and Drug Act, died, July 27, 1950, at his home, 1461 Holly Street, N.W.

Dr. Hoover was born in Felicity, Ohio, in 1876. He received his A.B. degree from Oklahoma A & M College and his Master's degree in chemistry from George Washington University, graduating from the latter institution in medicine in 1910.

Dr. Hoover came to Washington in 1904 to work in the Bureau of Chemistry under Dr. Harvey W. Wiley, who was "father" of the Food and Drug Act of 1906. During the next quarter century he helped revise certain parts of the law. He resigned in 1929 as

Chief of Drug Controls in the Bureau of Chemistry. From 1929 until his death he acted as a consultant for private industry on Food and Drug problems. He had offices in the Governor Shepherd Apartments, 2121 Virginia Avenue, N.W.

He was a member of the American Chemical Society and the George Washington University Medical Society. He had written numerous articles on foods and drugs for scientific journals.

His wife, Mrs. Elizabeth Wright Hoover, died in 1925. Surviving are a son, Dr. George W. Hoover, Jr., an Active member of the District Medical Society; a daughter, Mrs. Virginia Hoover Thompson, of Flint, Michigan; and four grandchildren.

WILLIAM J. HEFFNER, M.D.

(1879–1950)

Dr. William J. Heffner, retired psychiatric consultant with Veterans Administration, died, September 1, 1950, at his home, 2409 59th Avenue, Cheverly, Md., after a short illness.

Dr. Heffner was born in Springfield, Mass., in 1879. He graduated from Baltimore Medical College, now part of Maryland University, in 1905. He was a general practitioner in Gilbertville, near Worcester, Mass., until he came to the District of Columbia in 1917 to enter the United States Public Health Service.

When the Veterans Bureau was organized, Dr. Heffner became Chief Medical Officer of the Fourth District. In 1924, when he was sent to the Veterans Hospital in Bronx, New York, he became interested in psychiatry. After training in this field at Columbia University, he practiced at veterans' hospitals in Northport, N. Y., and Roanoke, Va.

He was a member of the National Psychiatric Association, the Long Island (N.Y.) Psychiatric Society, which he served as President for five years, and the National Board of Mental Hygiene. He was a member of the St. Ambrose Catholic Church in Landover, Md.

Surviving are his wife, Mrs. Kathryn T. Heffner; two sons, Dr. William N. Heffner, an Active member of the District Medical Society, and Edward P. Heffner, a student at Georgetown University Dental School; and three daughters, Mrs. Christine T. Porteus, Manhasset, N. Y., and the Misses Eileen M. and Frances J. Heffner, residing at home. He also leaves a sister, Mrs. Mary M. Komora, of Albany, N. Y., and a brother, Charles A. Heffner, of Springfield, Mass.

Endocrines in Gynecology—Kimbrough and Smith

(*Continued from page 551*)

ondary amenorrhea, and anovulatory sterility. It was also professed that no known contraindications to its clinical applications were recognized.

The place of androgen in gynecology was averred to be limited by our failure to know more of its role in gynecic physiology, as well as by its disturbing faculty to virilize. It was described as having some value in the temporary management of proved endometriosis, nonorganic mastodynia, and occasional instances of well-studied premenopausal menorrhagia.

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Behavior Problems of NormalChildren—Ross

(*Continued from page 556*)

difficulties, but if this can be made easier for the child and the end-result be more predictable, it is time well spent.

4. A recurrence of the difficulty does not indicate that the original treatment failed any more than a child returning with a second cold after the first had been cured is indication of failure.

5. As in all other specialties there should be consultation with a child psychiatrist if a condition persists beyond an acceptable length of time. All of the symptoms of behavior disturbances in normal children can occur as evidence of a major upset in a child. However, as in all other conditions, those things which can be handled by the family physician or pediatrician should be so handled. Desirable as it is to have a specialist, unnecessary consultation can be very frightening to a family or to a child and can fix their attention upon an aspect of the situation which otherwise could be assimilated in the course of time.

6. The aim in child psychiatry, as in pediatrics, is to have a healthy child. The prevention of psychoses is not the aim of treatment of childhood difficulties any more than the prevention of tuberculosis is the aim of the treatment of the colds which children develop. Each child has a right to as healthy and happy a childhood as his parents, the community, and the medical profession can give him.

Intraepithelial Carcinoma of Cervix—Winship, Bell and Klopp

(*Continued from page 563*)

in the average general hospital as in the large medical center.

More rigid criteria are proposed for the classification of in situ carcinoma. This is necessary before any definite decisions regarding diagnosis and treatment can be made.

The clinical aspects and treatment of intraepithelial carcinoma are discussed briefly.

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Acute Myocardial Infarction—Howell

(*Coetin.ed from page 567*)

Complications should be dealt with actively and/or prophylactically. Anticoagulants should be used routinely for the prevention of thromboembolic phenomena. The prophylactic use of quinidine is favored. Congestive failure should receive prompt and full treatment. Recent observations favor prompt, if not prophylactic, treatment of shock.

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New Parking Privileges—Observer

(*Continued from page 576*)

to this arrangement, further expediting the care of patients. They should also help lighten the burden of busy physicians.

As in the case of emergency parking privilege cards, physicians or their representatives must sign for the hospital parking stickers. They are obtainable at the Society's Executive Offices, 1718 M Street, N.W., between the hours of 8:30 a.m. and 5:30 p.m. daily, except Saturday and Sunday.

T. W.

Wartime Mass Evacuation—Wilson

(*Continued from page 577*)

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* Available upon request to The Surgeon General, Department of the Army, Main Navy Building, Washington 25, D. C.

Hospital Affiliates with Eye Bank

(*Contined from page 582*)

death the donor wishes his eyes to be given to the Eye-Bank. On death the donor's kin should notify the doctor or the hospital authorities immediately as all eyes must be removed one hour after death. The hospital will send a member of its staff to remove the eyes at no cost to the family.

Living persons who have an eye enucleated may also donate that eye to the bank if the reason for enucleation has no effect on the cornea.

Eyes donated through the George Washington University Hospital will be preserved and flown by national airlines to the New York Headquarters for examination and distribution well within the 48-hour "life" limit of the cornea.

The Eye-Bank for Sight Restoration, Inc., also welcomes contributions of money to carry out its research and training program.

Editor's Note: The Episcopal Eye, Ear and Throat Hospital has been affiliated with the Eye-Bank for Sight Restoration, Inc. since 1947 and will be glad to supply upon request the necessary forms to be filled out by eye donors.

Tumor Service at Episcopal Hospital—Den and Gilligan

(*Continued from page 586*)

and is equipping him with the technical skill. Such a tumor service also offers a more concentrated clinical attack in the solving of the cancer problem than has been achieved heretofore. The Episcopal Eye, Ear and Throat Hospital is the second largest institution of its kind in the United States.

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QUINTUPLETS AND FECUNDITY

JOHN BENJAMIN NICHOLS, M.D.
Washington

ON THE Friday before Palm Sunday in the year 1276, the Countess of Henneberg (aged 42) gave birth to 365 children, 182 boys, a like number of girls, and 1 of double or nondescript sex. The infants—all the boys being christened John and all the girls Elizabeth—were baptized by the Bishop of Treras in 2 large brazen vessels which for centuries were kept on exhibition in a museum near the Hague. At least so goes the celebrated story, often repeated, and deemed of sufficient importance to be mentioned in published histories of the Netherlands. This occurrence did not just happen. It was the fulfillment of the prayer of a mother of twins, who, infuriated at being accused by the countess of having had more than one father for the twins, revengefully prayed that the latter should have as many children as there were days in the year. It has been suggested that this might actually have been a case of hydatidiform moles, thus affording some basis of fact for the development of the myth.

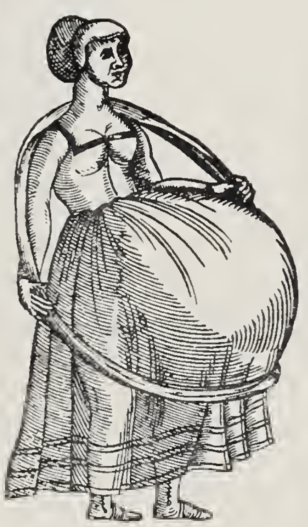

FIG. 1. Case of pregnancy with 11 fetuses, after Ambroise Paré, *Oeuvres*, 1575.

A similar story was told of a Countess Ermentrude, who made similar accusations against the mother of a set of triplets. In the next year the countess received her meed, giving birth to twelve sons.

Such tall tales of prodigious fecundity and plural births were favorite topics of the ancient and medieval Paul Bunyans. Women of the nobility were especial targets of the stories. Besides quintuplets, claims were made of the birth of 8, 9, 10, 11, 12, 13, 15, 16, 30, 36, etc., children at single confinements. Margaret, wife of Count Virboslaus of Poland, bore 36 children on January 20, 1296. One woman was said to have had 20 sons, 9 at one birth and 11 at another; an imaginative picture of this woman (figure 1), pregnant with eleven fetuses, was published by Ambroise Paré, in his *Oeuvres*, 1575. Margarita Goncalez, of Valencia, 1585, by two husbands in 33 accouchements had 144 children. A woman of Florence allegedly bore 52 children, never less than three at a time, and as many as six.

The wife of Lord Maldemeure of Seaux had twins in the first year after marriage, triplets the second year, quadruplets the third year, quintuplets the fourth year, and sextuplets the fifth year, when she died. These are samples of the ancient stories that were current, as collected and summarized in such publications as *The Wonders of Nature*, by the Reverend William Turner, published in 1692, *Anomalies and Curiosities of Medicine*, by Gould and Pyle, 1897, and the like.

The public has a keen interest and concern in all matters sexual. There are strong natural reasons for this. A race indifferent, uninterested, and inert in its own perpetuation would lack a factor necessary in the struggle for survival and would soon become extinct. Consequently, in the course of evolution the reproductive instinct has been developed and intensified in the survivors as one of the most powerful of the many urges and motivations to action and behavior characterizing humanity. This element forms a large basis and background of human nature, pervading, coloring, and exerting a prodigious influence on the feelings, behavior, and interests of individuals in general in all their manifold ramifications and phases.

This human interest in matters sexual must have inspired the imaginative and fantastic stories about childbirth which the ancients were fond of relating. The modern world is equally interested in unusual and remarkable instances of plural births and great fecundity. Twins, triplets, and quadruplets attract attention in increasing degree, quintuplets and upward as events most amazing. Sixteen years ago a dramatic event occurred which attracted and has since held the fascinated attention and interest of the entire world. That was the birth of the Dionne quintuplets in Canada in 1934 and their subsequent development. This occurrence aroused interest in quintuplet births in general and has led to a more complete and systematic gathering and reporting in the daily press of the news of such cases, which are now known to be constantly taking place all over the world.

There are a large number of accounts of the occurrence of quintuplet births scattered in the literature, going back to ancient Egyptian and Roman times, and emanating from all quarters of the world. These accounts vary in the reliability and credibility to be attached to them, from the fantastic and unbelievable myths of the ancients to the unquestionable authority and scientific definiteness of the case reports published in the medical literature by the attending physicians. On account of their vagueness, incredibility, and mixture with obvious myth, the reports of quintuplet births occurring before the seventeenth century may be dismissed from consideration. More reliance can, however, be placed on cases recorded within the past three centuries, and only those occurring within this period are accepted and considered here. In the search of the literature a total of 75 or 80 cases within the period adopted can be collected, a dozen or so of which are mere allusions and too vague or uncertain for inclusion in a definite statistic or casuistic. Some of the published accounts are indefinite or unverifiable, some genuine cases elude detection, some are in unavailable publications or unfamiliar languages. It cannot be doubted that in the world over many cases of quintuplet births will fail to be brought to light by not being reported or published. Consequently, the statistical conclusions presented are based on the data at hand, and must be evaluated in the light of the uncertainties and deficiences involved.

From the literature at least 62 reasonably definite cases of quintuplet births can be collected, besides those too vague for consideration. At least 46 of the cases are derived from reports by the attending physicians themselves, and therefore of unquestionable verity. The professional reports present such details as the prematurity and stage of gestation; viability and survival of the infants; their size and weight—diminutive, down to a pound or less; their sex; course of labor; placental attachments; age, race, and other children of the mother, etc. Some of the cases are confirmed by photographs (see figure 2), and some of the specimens are deposited in medical museums. Casuistic compilations of such cases have been published by a number of authors, such as Nijhoff, Muellerheim, Guzzoni, and De Lint. The 16 other cases are obtained from accounts published in the newspapers. Some of such accounts were soon afterward contradicted and cancelled. Some of the news notices are corroborated by the statements of the physicians themselves. Especially since the sensational birth of the Dionne quintuplets in Canada in 1934 have the gatherers and publishers of news been quintuplet-conscious and alert and careful in world-wide coverage in this field. On the whole, while not so authoritative as the professional publications, uncontradicted news reports from responsible news agencies may, with due critical appraisal, be regarded as of considerable reliability.

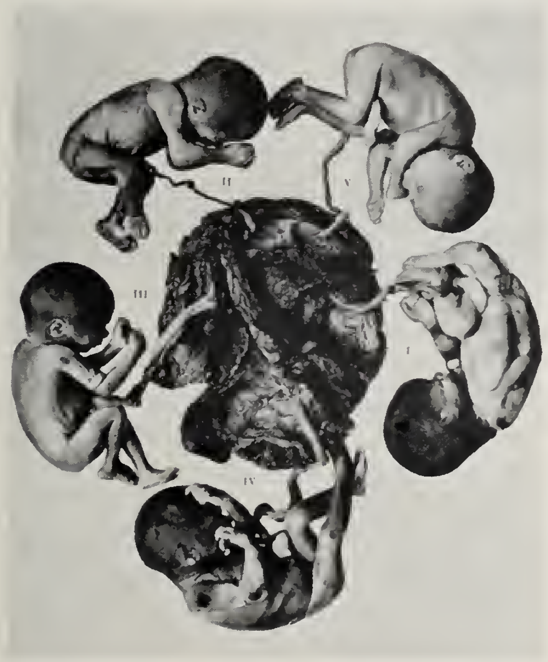

FIG. 2. Quintuplets in case of Dr. J. J. DeBlécourt, the Netherlands, 1903.

As to time, cases in this series deemed authentic date as far back as 1648. As to locality, the cases emanate from all parts of the world: Siberia, China, Korea, Japan, India, in Asia; Senegal, the Gold Coast, Tanganyika, in Africa; from most of the countries of Europe; from various Latin-American countries; and from Canada and the United States. Many diverse nationalities and races (negro, etc.) were involved. The veterinary literature also contains reports of similar extraordinary plural births in animals, such as the birth of five or seven lambs and calves at single litterings.

The sex distribution of the infants is known in 52 of the cases, as follows:

SEX PER CASE		NUMBER OF CASES	TOTALS	
Male	Female		Males	Females
5	0	9	45	0
4	1	8	32	8
3	2	9	27	18
2	3	8	16	24
1	4	7	7	28
0	5	11	0	55
		52	127	133
			260	

Although this sample is so small that each additional case of quintuplets might perceptibly alter the total figures, the sex proportion of these births seems to follow the principles of ordinary birth probability. The figures indicate a tendency to a slight excess of females in the births. This compares with the general average total for the United States of about 1,055 sons for each 1,000 daughters in living single births; 1,043 males in twin births, 1,007 males in triplets, and 991 males in quadruplets (111 cases); 951 in this small series of quintuplets. There is a consistent decrease in the relative proportions of males to females born in these ascending categories of plural births. For this there is biological explanation. The male has an innately weaker vitality and survivability than the female; and this progressive and consistent decrease in the proportion of males born is due to the increasing hazard

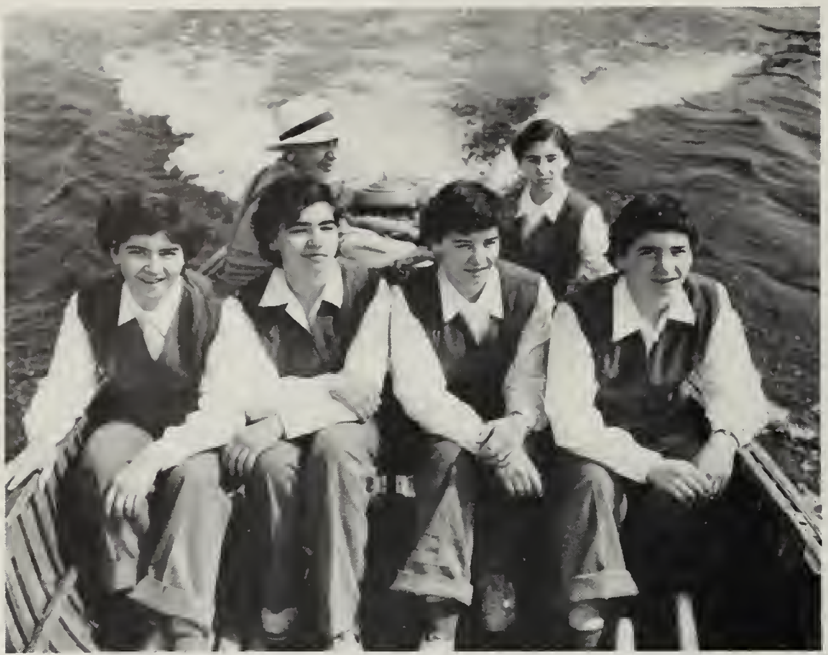

FIG. 3. The Dionne quintuplets, at the age of 16 years, boating with their father. Left to right: Annette, Emilie, Cecile, Marie (above), and Yvonne; born to Oliva and Elzire Dionne on May 28, 1934, near Callander, Ontario, Canada. Collective weight at birth, 11½ pounds.—*Copyright, 1950, King Features Syndicate, Inc.; World rights reserved.*

to life (and predominantly male life) as the number of infants in the plural births increases.

On account of the crowded and adverse intrauterine conditions during the embryonic period fetuses and infants born in plural births understandably have a much lowered vitality and viability than those born singly; and this lowering of the ability to survive increases with the number born at a birth. For example, in the 120 quadruplet births (480 infants) registered in the United States from 1915 to 1947 the number of infants stillborn constituted 16 per cent of the total, as compared with the general over-all average for the period of 3.5 per cent; the neonatal mortality was additional. In a large proportion of the cases quintuplet births are of immature, undersized, and nonviable fetuses prematurely born in various stages of gestation. Arrests of development and monstrosities occur; two cases of anencephalic monsters are included in the reports. The proportion of stillborn quintuplets is high; and the neonatal or soon-after-birth mortality is extremely high. Although a surprising proportion of the cases reach full term, many of the full-term infants are stillborn; and most of those born alive die within a few minutes, or hours, or days. As the quintuplet cases are ordinarily reported only at the time of birth, in the lack of follow-up inquiries information as to the survival of the infants not stated to have died immediately is rarely available. However, survival beyond the natal and neonatal period is very rare, and the known cases of the kind attract intense public attention and interest, such as the Dionne female quintuplets born in Canada in 1934 (see figure 3) and the Diligenti quintuplets (two boys and three girls) born in Argentina in 1943 (see figure 4) still living and in vigorous health. In a case in Germany in 1907 three of the sons were known to have survived a few years, one being alive and healthy at the age of seventeen years. There have probably been other cases of survival, but as to this the literature is silent.

In the past 80 years or so there have been 8 well-authenticated cases of quintuplet births reported in the United States, as follows:

1876, in South Carolina, case (colored) of Dr. J. F. Pearce.

1881, Illinois, Dr. J. Moffitt.

1896, Kentucky, Dr. S. J. Matthews.

1902, Ulster County, New York, newspaper report.

1936, North Carolina, Drs. E. C. Hamblen, R. D. Baker, and G. D. Derieux.

1945, Freedmen's Hospital, Washington, D. C. (colored).

June 27, 1950, Charity Hospital of New Orleans, Louisiana (colored).

July 12, 1950, North Carolina, case (colored) of Dr. John T. Llewellyn.

One half of the above cases were in negroes, a disproportionate incidence in that race. With 8 cases in the United States in 80 years, averaging 1 every 10 years, the occurrence of the 2 cases in 1950 only 2 weeks apart was a weird freak of chance.

In addition, a Dr. Paddock seems to have had a case (or 2) in Franklin County, Pennsylvania, in 1826, associated with extraordinary fecundity. In this case the mother was stated to have borne 2 sets of quintuplets within 12 months of each other, and also a pair of twins 8 months later; and she had previously given birth to a set of triplets. As some degree of authenticity for this case, it was very briefly mentioned in an article in the British *Lancet* for 1839–40, and details were published in a newspaper over a century later; but the original authoritative report has eluded search.

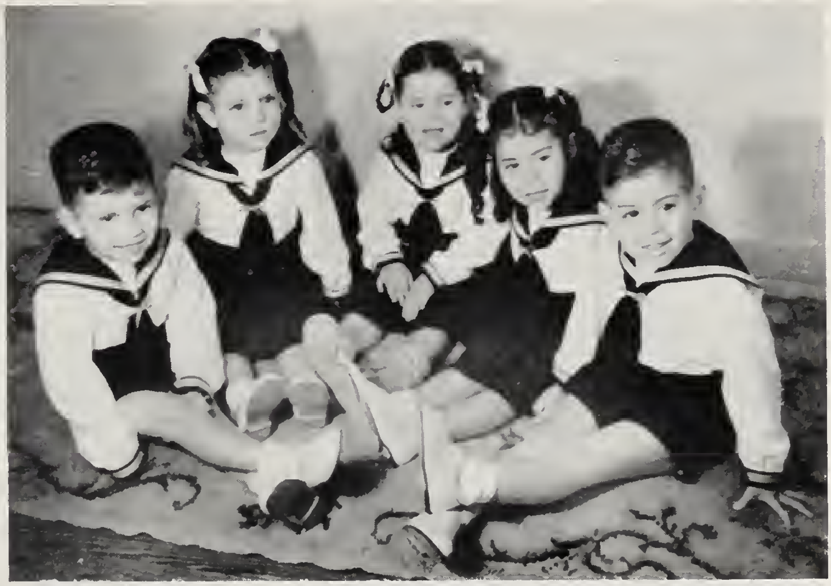

FIG. 4. The Diligenti quintuplets at the age of 4 years. Left to right: Carlos Alberto, Maria Esther, Maria Fernanda, Maria Christina, and Franco; born to Senor and Senora Franco Diligenti on July 15, 1943, at Buenos Aires, Argentina.—*International News Photos*

In addition to the quintuplet reports the following more or less dubious cases of higher degree in the United States have been reported in brief news items in high-class medical journals, but confirmation has not been forthcoming, except in the 1936 case:

1847, case of sextuplets in Maine.

1888, case of sextuplets in Texas.

1936, case of sextuplets in Missouri.

1899, case of septuplets in Pennsylvania (colored).

1872, case of octuplets in Ohio.

What is the frequency or rate of occurrence of quintuplet births?

In the United States since general registration of births was instituted in 1915 there have occurred about 80,000,000 births. Plural births (twins and upward) occurred in about 1.13 per cent of all the accouchements, predominantly twins. Twins were born once in every 89 or 90 cases of childbirth; triplets once in about 9,000 cases (9,063). Of quadruplets 120 cases were reported from 1915 to 1947, approximately 1 in 600,000 births. During the period since 1915, with 80,000,000 births, there were 4 known or reported cases of quintuplets in the United States, which would afford a crude ratio of their occurrence of 1 in 20,000,000 births.

In the 17 years since 1934, when the Dionne case first attracted the systematic attention of the press newsgatherers to the subject, 18 seemingly authentic cases of quintuplet births have been reported in the newspapers, a rough average at the present time of at least 1 case in the entire world in each year. There are no definite data of the number of births that annually occur in the entire world; but, if the birth rate of the United States were universally applicable, the number would amount to some tens of millions, one annual quintuplet birth among which might yield a world ratio approximating that of the United States.

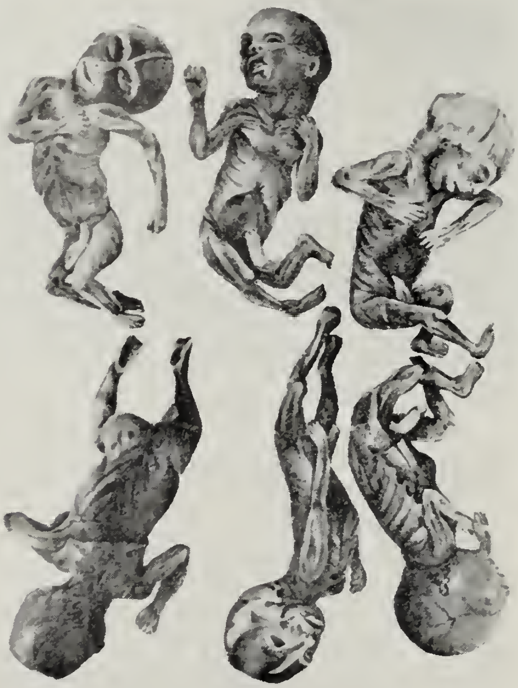

FIG. 5. Sextuplets in case of Dr. F. Vassalli, Italy, 1888.

No sharply defined ratio of the occurrence of quintuplet births can be fixed, as each additional case is apt to cause material fluctuation in the figures˙ The data at hand would indicate that the ratio might approximate 1 quintuplet birth in about 25 million total births, with a large allowance for plus or minus deviations.

As the population of the United States is about one fifteenth of that of the entire world, at the annual rate of 1 case for the whole world a quintuplet birth might be expected in this country once in every 15 years. The actual frequency in the United States, as shown above, has averaged 1 case for every 10 years. This, however, is in line with the world rate, in view of the more complete reporting of the cases in this country as compared with the world in general.

The present rate of 1 quintuplet case in the whole world in each year would not apply in past centuries when the population and births were far less than they are now. The average time for each such birth to occur would be lengthened proportionally to the smaller population basis. Consequently the 60 or 70 known cases of quintuplet births during the past 300 years (averaging 1 in every 4 or 5 years) can be regarded as quite a sizable proportion of all the cases that must have occurred in that period.

The birth of five infants at a time is not the maximum of which the human female is capable, as is shown by unquestionable reports. Brief news items were published in high-class American medical journals of the births of sextuplets in Maine in 1847, and in Texas in 1888; but direct confirmation was not forthcoming. There are index references to 3 cases in Europe, in 1831, 1844, and 1885, reported in medical journals; but the original articles were not found available.

There have, however, been 2 cases of sextuplet births reported in detail by the attending physicians, with confirmative photographs and museum specimens, which are of unquestionable authenticity, as follows:

Dr. Francesco Vassalli in 1888 reported a case in Italy of 4 males and 2 females stillborn at the fourth month; this case was also exhaustively studied by Dr. Arturo Guzzoni (see figure 5).

Dr. H. Vortisch in 1903 reported the birth of 5 males and 1 female to a negress at a mission in the Gold Coast of Africa, verified by photographs. The mother stated that she had previously borne twins once, quadruplets once, and triplets once (see figure 6).

In addition there has been 1 certain case of the birth of sextuplets in the United States. In Mendon, Missouri, a farmer's wife aged 36, mother of 9 previous children, in August, 1936

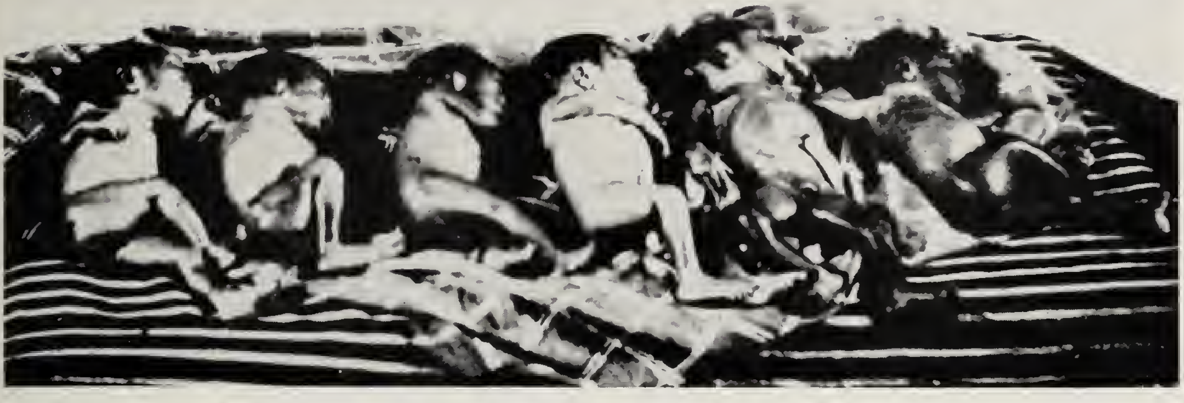

FIG. 6. Sextuplets in case of Dr. H. Vortisch, Gold Coast of Africa, 1903.

gave birth to 5 girls and 1 boy. One of the infants, a female, was born alive; the rest were stillborn. An account of the case was published in the daily newspapers, but it is authentically confirmed by a statement of the attending physician, Dr. William B. Lucas, written in response to inquiry. The daughter, born alive, weighed 9 pounds at birth and is still living, healthy and normal.

There is a little modern literature relative even to septuplet births, 7 at a time. Frequently cited in this connection is an inscription on a gravestone in Hameln, Prussia, reciting the birth to a woman at 1 confinement, on January 9, 1600, of 7 infants, 2 males and 5 females. Unconfirmed news items in responsible medical journals reported in 1899 the birth to a negress in Pennsylvania of 3 sons and 4 daughters; and in 1872 the birth in Ohio even of octuplets, 3 sons and 5 daughters. Here we are evidently getting into the penumbra of reliable information and the limits of human reproductivity.

Many women who bear 1 set of plural births, from twins upward, are apt to have 1 or more additional plural births. There is evidently a tendency innate in such mothers (or fathers?) toward the repetition of plural births. The combination of single and repeated plural births, especially in the higher brackets, may result in prodigious and amazing fecundity. There are many instances of such prolificity, some apocryphal, others of unquestionable verity.

On the apocryphal side are such ancient cases as were recounted by Aristotle and Pliny of women bearing quintuplets 4 times. An English woman was said to have had quintuplets twice and triplets 3 times. In 1553 a Swiss woman bore twins and quintuplets in the same year. Some of the ancient stories are within the range of possibility. Even in modern times such stories of extraordinary fecundity are not wanting. A Russian peasant (1857) was alleged to have had by his first wife in 21 confinements 4 quadruplets, 7 triplets, and 10 twins; and by his second wife, whom he married at the age of 70 years, 1 set of triplets and 6 pairs of twins; a total of 72 children, most of them living. Another Russian peasant (1872) by 2 marriages became father of 87 children in 45 accouchements, there having been repeated twins, triplets, and quadruplets.

In the cases of Drs. Paddock and Vortisch, as mentioned above, remarkable repetition of high plural births was alleged. Also, the Ohio woman who was reported in 1872 to have given birth to octuplets allegedly had previously borne 2 pairs of twins; she herself was a triplet, her father and mother were twins, and 1 of her grandmothers had borne 5 pairs of twins. The 21-year-old mother who bore quintuplets in North Carolina in 1950 had borne quadruplets 4 years previously.

Genuine cases of repeated plural births, with

(Contined on page 659)

DYSPAREUNIA

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DYSPAREUNIA in minor degree is surprisingly common and in major degree not uncommon. Most women hesitate to bring up the subject, not only because of their own modesty but also because they are not certain what reception they will get from the physician. A simple inquiry addressed in a matter-of-fact way will usually uncover the topic. Once the patient knows that a sympathetic ear awaits, it is amazing how her problems will pour out. The physician who has learned the value of the kind word and sympathetic ear at the right moment will sometimes be startled to find out what is really wrong with a patient he has been treating for some time without too much success.

It is a relatively simple matter to prevent dyspareunia by premarriage counseling. The mere fact that a girl seeks advice before making the plunge into matrimony gives both her and the physician advantage. Dyspareunia is usually not too difficult to overcome in early marriage. When it has been present for several years it may present insuperable difficulty. When it follows episiotomy or other surgery it may be doubly embarrassing to the surgeon, especially if he is inexperienced in dealing with it. When dyspareunia develops in postmenopausal women it may presage the end of sex life unless prompt therapeutic measures are instituted. Not every couple with this complaint can be completely or even partially helped. Some present bizarre personality and psychologic problems that no one, including the psychiatrist, can help. Nonetheless, the physician interested in such conditions will find many problems that are relatively simple to solve. He can be assured that when he does he will have the most profoundly grateful patients in his experience.

Part of the premarriage counseling interview should consist of a gentle pelvic examination. With pentothal available there is never any excuse for a doctor to do a forceful, rough, and painful examination upon a woman. Some of the members of the profession, not excluding the obstetrician-gynecologists, would be surprised to find out how well they are known among women for their large, rough hands. If the patient is apprehensive and frightened she should not be examined. One should talk to her, gain her confidence, and have her return again when she is better composed. At least the physician will not be an unknown stranger on the second visit. A gentle, 1-finger exploration of the vagina is usually sufficient to gain her confidence. If the vaginal introitus is adequate for its physiologic function it will be obvious. If it is tight or covered by an appreciable hymen one should not try forcefully to dilate it. The single, most important 'measure is for the patient herself to learn to relax her muscles in order that graduated dilators may be introduced by herself. Even when surgical incision of the hymen is necessary the self-dilation is important as a subsequent step. If it is not employed, painful vaginismus will often be the result. The following reports illustrate some of the common and some of the unusual problems seen in dealing with dyspareunia.

Illustrative Cases

Case 1. The patient was a 26-year-old woman who was due to be married in 2 months and who requested a premarriage counseling interview. Examination revealed an intact hymen not admitting 1 finger. The pelvic organs appeared normal by rectal examination. A small test-tube dilator the diameter of a lead pencil was shown her. This was introduced through the hymen by the patient with the physician guiding it. It was withdrawn, and nothing more done. She was given a set of graduated dilators and instructed to pass them successively for the first 3 sizes at home at her own convenience and to return. On the second visit it was a simple matter to do a 1-finger examination. The patient was instructed to pass the next 2 larger sizes and return again. On the third visit she was quite relaxed and it was possible to fit her with a diaphragm.

Comment. It is important to emphasize self-relaxation. The physician should describe the "ring muscle" of the vagina and how it becomes tense and resists intrusion. It is surprising how readily the average patient can overcome this with the graduated dilators. If the patient desires a diaphragm it is usually possible to fit one by the third visit. Having her put it in and using her finger to identify the cervix and determine that it is in properly will help her further to relax. After practicing at home she can return for a final premarital visit to recheck the size. A month after consummation of the marriage this should be done again. It may be criticized that all this is time-consuming and tedious. The only answer to this is that patients so helped are universally appreciative of being spared a painful and humiliating consummation of their marriage.

Case 2. The patient was a 30-year-old woman, married for 2 months. Despite a coöperative husband all attempts at coitus had been very painful. Examination revealed a tense young woman with considerable vaginismus. She was instructed to discontinue all attempts at sex relations and to begin self-dilation. After 3 weeks she was able to pass the next to largest of the dilators without difficulty. Since this was obviously larger than her husband's physiologic requirement sexual activities were resumed without any discomfort.

Case 3. The patient was a 27-year-old woman seen 4 months postpartum with a painful episiotomy. Discontinuing sex relations and using graduated dilators for 2 weeks gave an excellent result.

Comment. These two problems seem so simple that their management should be obvious. Unfortunately it is not uncommon to see women with similar complaints who have been subjected to forceful dilation by other physicians with or without anesthesia without relief of pain. Vaginismus is an involuntary reflex, conditioned by the initial painful experience and added to by successive ones, either by the husband, the physician, or both. The pubococcygeus muscle has both voluntary and involuntary control. To overcome this spasm reconditioning can be accomplished by practicing self-induced relaxation with the graduated dilators.

Case 4. The patient was a 53-year-old woman who had had a perineorrhaphy 2 years previously with painful sex relations ever since. Examination revealed a dense band of scar tissue partially obstructing the introitus. There was also a 1-plus senile vaginitis present. She was instructed to use Dienestrol Creme once daily and to use the graduated dilators. Little if any improvement resulted. The next step was forceful dilation under pentothal which gave a little relief for a few weeks. Finally she was hospitalized and a perineotomy with plastic enlargement was performed. When seen 6 weeks after surgery the perineum had healed well and she was instructed to resume coitus, which she did with entirely satisfactory results.

Comment. This was physical obstruction pure and simple. The use of graduated dilators did not help initially and was not necessary after surgery.

Case 5. The patient was a 48-year-old married woman who complained of sudden pain during a recent coitus followed by vaginal bleeding. One year prior she had had roentgen castration for menometrorrhagia in preference to radium termination or hysterectomy. Examination revealed a fairly advanced senile vaginitis with partial contracture of the vaginal vault. In the left fornix was a 1-inch laceration. Sex relations were discontinued, and Dienestrol Creme was inserted twice daily into the vagina. After 6 weeks of treatment the vagina had healed and had become reasonably pliant so that sex relations could be resumed. She was instructed to continue to use the Dienestrol Creme biweekly to prevent recurrence and progression of the senile changes. She returned after an 8-month interval, again complaining of painful sex relations, and she confessed that she had not used the hormone Creme for 6 months. Examination revealed recurrence of the senile change and some progression of the contracture of the vault. She began to use Dienestrol Creme daily and also was begun on self-dilation. After 8 weeks of this treatment she was able to resume sex relations. Since then she used the Creme faithfully once a week. A year afterward she complained of an irritating vaginal discharge. Examination revealed acute *Trichomonas vaginalis* vaginitis which responded to measures usually employed for the condition. She has remained symptom-free by alternating the use of Dienestrol Creme with Allantomide Creme.

Comment. This patient presents 3 features of interest. First is the rapid development of senile vaginitis with contracture of the vault, which not uncommonly follows deep X-ray treatment of the pelvis. It is less common following radium treatment or surgery; nonetheless, it may occur. It is occasionally seen as a complication of senile changes following a perfectly natural menopause. The excessive degree observed after roentgen therapy, however, deserves comment. The second feature is that such a condition is prone to recur when estrogenic treatment is discontinued and that when such recurrence happens it may be a progressive lesion. The third feature of interest is the development of *Trichomonas vaginalis* vaginitis. It is not uncommon for a patient under treatment with estrogens past the menopause to develop a trichomonad infection. When this happens it is commonly overlooked because the assumption is that the irritation is due to senile vaginitis.

When estrogenic treatment is discontinued these patients must be observed closely to prevent recurrence and progression of the senile changes. Furthermore, when a menopausal patient has been receiving oral, intramuscular, or intravaginal estrogen and complains of vaginal irritation trichomonads should be looked for before ascribing the discomfort to senile changes. Senile vaginitis can be satisfactorily treated by oral, intramuscular, or intravaginal estrogen. The latter is preferable when the uterus is still present, since estrogen-induced bleeding is less likely to occur than with the other routes. Some estrogen must be absorbed, however, since it is common for patients to complain of breast soreness when first using it intravaginally. During the past 3 years in this clinic 4 preparations of vaginal estrogen have been evaluated. One is a stilbestrol (0.5 mg.) suppository. The best advantage of stilbestrol is that it is the cheapest form of estrogen. It has been the drug used first in treating 80 patients with senile vaginitis, with good results in about half of them. Two other preparations are Dienestrol Creme* and a pressed suppository tablet of Dienestrol,† both of which are equally effective in providing relief for the majority of patients not helped by stilbestrol. The fourth preparation is an amniotin suppository containing 2,000 I.U. per suppository. Two patients who did not respond to either stilbestrol or Dienestrol found relief in the use of amniotin. In a previous report[1] the use of amniotin has been reported as the treatment of choice, but it is much more expensive than the synthetic estrogens. In order to complete the evaluation 4 patients with senile vaginitis were treated, first with Dienestrol Creme base (with no hormone in it) with no relief whatsoever. Since suppositories of Dienestrol are not commercially available, it is concluded that the optimum drug preparation for treating senile vaginitis is Dienestrol Creme. Women who show recurrence of the condition when treatment is stopped must continue to use the Creme once or twice a week if they wish to preserve sexual function. It is not necessary to continue to use the applicator. Just a dab of Creme on the finger tip swabbed inside the introitus is sufficient. This is little enough to do to preserve sexual function.

Case 6. The patient was a 35-year-old married woman who for 10 years had had coitus only between the thighs. Her husband had never been able to effect penetration. She presented herself because she was seriously thinking of becoming pregnant. Multiple psychologic factors were present in both partners which were only superficially inquired into. Self-dilation was begun, and after 3 weeks an excellent objective response was obtained. The patient was instructed to try it subjectively. One month later she reported that her husband had satisfactorily consummated intravaginal coitus several times but that for reasons of their own they desired to resume as before. A suggestion of psychiatric help was rejected.

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* Supplied by the Ortho Pharmaceutical Corporation, Raritan, N. J.

† Prepared especially for this study by the Ortho Corporation.

Case 7. The patient was a 50-year-old virgin who had never had a pelvic examination. Early in life she had chosen a career instead of marriage. Now at the age of 50, having had a successful career, she had met an attractive widower who appealed to her and who had proposed marriage. Many years before she had had an attempted vaginal examination which was not completed because of a dense, impenetrable hymen. She requested that this be incised under an anesthetic and that she be fitted with a diaphragm before marriage. She was admitted to the hospital and a tough membranous hymen was excised. A vaginal pack was inserted. This was removed 24 hours later when she was awake. A few days later self-dilation was begun, and after 3 weeks of treatment it was possible to fit her with a diaphragm. Two months after she was married she reported that her sex relations were satisfactory.

Case 8. The patient was a 25-year-old European housewife, married for 3 years, who in presenting herself explained in halting English that the concern of her and her husband was that they had thus far failed to produce offspring and heirs. In 3 years of marriage consummation had never occurred because the husband had not been able to effect penetration. The wife had seen gynecologists in several European countries without success. She had had repeated forceful dilation with and without anesthesia. She and her husband had also read widely on the subject but were still unable to overcome their difficulty. They had recently come to this country and sought advice. Examination revealed a coöperative but very tense young woman with considerable vaginismus. She was instructed to discontinue attempts at sex relations and was started on self-dilation. After 4 weeks she was able to pass the largest dilator readily. Since this was much larger than her husband's requirement she realized there could not be a physical barrier. Her husband was then able to effect penetration readily. Now the situation reversed itself when he, although able to effect erection and penetration, was himself thereafter unable to ejaculate. This was a remarkable situation, and psychiatric help was called for. The psychiatrist reported that the husband had had all consciousness of sex so thoroughly suppressed by his childhood training that he not only could not perform the sex act in any form but that he could not even think much about it when awake. Ejaculation only occurred during a nocturnal emission, never at any other time. The marriage had been arranged by their parents for purposes of state and family lineage. Although romance had never entered into it, both husband and wife were clearly concerned about each other and about their obligations to their respective families. There was never any question of separation or divorce. It was the psychiatric opinion that a pregnancy was highly desirable. One feature made this possible. When a nocturnal emission occurred it awakened the husband just prior to ejaculation. He was able on several occasions to collect the semen, and his wife brought it to the office for insemination. After 6 months' trial without success she was given a medium-sized, blunt tip asepto syringe and instructed to inseminate herself promptly during the fertile period. The first month she did so she became pregnant, and 9 months later delivered a healthy, 7½-pound baby girl. Although she and her husband have never enjoyed the sexual consummation of their marriage, a happier couple would be difficult to find.

CONCLUSIONS

Most instances of dyspareunia can be appreciably aided by an interested and sympathetic physician who directs treatment at overcoming physical obstruction and relieving painful vaginismus. With patience and coöperation sex relations can be made a comfortable experience rather than a painful and unpleasant one. The most important single aid is for the patient to reëducate her own muscles to relax sufficiently by accommodating graduated dilators which she introduces into the vagina herself. Once this is done she is able to relax sufficiently to accommodate her husband. When obstructive or senile changes are present they must be adequately treated.

This report has not discussed libido or sexual gratification. Overcoming painful coitus does not insure the development of sexual desire or orgasm. The average physician had best limit discussions of means of provoking libido to simple generalizations, and then only when specifically questioned by the patient. When prolonged and further discussion about this is requested it is best to refer the patient to a competent psychiatrist. Overcoming vaginismus may help to improve libido, but it must be remembered that a considerable proportion of married women will never experience libido or orgasm. Most of these women can and do achieve a satisfactory marriage through mutual interests with their mates, pleasure in material possessions, children, and

(*Continued on page 659*)

REINFECTION TUBERCULOSIS ACCORDING TO AGE AND RACE AMONG 31,400 SELECTEES IN THE DISTRICT OF COLUMBIA*†

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SOON after the Selective Service Act became law, arrangements were made to make X-ray films of the chest of each selectee called up by his Local Board in the District of Columbia. This was accomplished through the coöperative effort of the Bureau for Tuberculosis of the Health Department, the United States Public Health Service, and the Selective Service Headquarters for the District of Columbia. Under this plan the X-ray filming of selectees was begun early in December, 1940 and continued until December, 1941, when the local Induction Stations were ready to make these films.

During this period of 1 year 31,400 males between the ages of 21 and 35 were examined by the photofluorographic method with 4 x 5 inch films. The films were made at the Health Department's chest clinic with the aid of supplemental personnel provided by the United States Public Health Service and the Headquarters of the Selective Service for the District of Columbia. The films were read by the clinicians attending the chest clinic, each film being read by at least two clinicians. The men having positive or suspicious 4 x 5 inch films were ordered to return for 14 x 17 inch films, which likewise were read by at least two clinicians. Follow-up studies of most of the positive or suspicious patients were made in the chest clinic. Some patients went to private physicians; most transients and nonresidents returned to their home states as soon as they were told they had or were suspected of having tuberculosis.

In addition to the selectees 1,000 members of the District of Columbia National Guard were examined radiographically, but the figures for the National Guard are not included since this force comprised a selected group which previously had had 1 or more physical examinations to exclude the physically unfit.

It is important to remember that the men examined for the Selective Service had had no preliminary physical examination. With each order to a selectee from his Local Board directing him to appear for a physical examination went an order to report to the chest clinic for an X-ray film. The chest roentgenographic examination was compulsory and was enforced by the Selective Service, since no Local Board would send a man to the Induction Station until a report on his chest X-ray film was available.

In this study, which was made primarily to exclude the tuberculous from the armed forces, many interesting facts came to light. This report, however, will be limited to reinfection tuberculosis as it existed in this group. These figures do not include the men rejected for pulmonary calcifications as required by Selective Service regulations. This report and the accompanying tables are in most instances based on the final diagnosis after study, rather than on the survey film alone. Exceptions to this rule occurred in those individuals who were temporarily in the District of Columbia and who were examined at the request of their Local Boards.

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* From the Chest Clinic, Bureau for Tuberculosis, Health Department of the District of Columbia.

† The X-ray filming of these selectees was carried out under the direction of the late Dr. A. Barklie Coulter, Director of the Bureau for Tuberculosis.

Extent of Disease

Table 1 shows the extent of reinfection tuberculosis according to race. Of the 31,400 men examined, 311 or 1 per cent were diagnosed as having pulmonary tuberculosis. Of this number, 178 or 57 per cent had minimal lesions; 90 or 29 per cent had moderately advanced, and 43 or 14 per cent had far advanced lesions.

TABLE 1

Reinfection Tuberculosis; Extent of Disease According to Race

EXTENT OF DISEASE	WHITE		NEGRO		OTHER		TOTAL	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Minimal.......	123	58	53	57.6	2	28.6	178	57.2
Moderately advanced......	64	30.2	23	25	3	42.8	90	29
Far advanced..	25	11.8	16	17.4	2	28.6	43	13.8
Total.......	212	100	92	100	7	100	311	100

Incidence by Race

Of the 311 cases of reinfection tuberculosis, 212 or 68 per cent were white, 92 or 30 per cent were negro, and 7 or 2 per cent belonged to other races. The United States Census Bureau gives the negro population of the District of Columbia in 1940 as 28.6 per cent of the total population. Thus, the incidence of reinfection tuberculosis in this negro group is only 1 per cent higher than in the whites. This is in accord with published reports, which give the incidence of reinfection tuberculosis among negroes as the same or only slightly higher than that for the white race in a given geographical area.[1, 2] Yet in 1942 the mortality rate among negroes in the District of Columbia was 5.5 times higher than among whites. During the 15 years between 1927 and 1942 the white death rate from tuberculosis dropped from 68.6 to 31.8 per 100,000, and the negro death rate dropped from 290.5 to 175.4. However, during this same period the ratio of white to negro deaths rose from 1:4.2 to 1:5.5.

Of the 212 cases in the white group, 123 or 58 per cent were minimal, 64 or 30 per cent were moderately advanced, and 25 or 12 per cent were far advanced. In the negro group, of the 92 cases, 53 or 58 per cent were minimal, 23 or 25 per cent were moderately advanced, and 16 or 17 per cent were far advanced. The percentage of minimal cases differs by 0.4 per cent in the two races. The negro group had a smaller percentage of moderately advanced cases, and a higher percentage of far advanced cases. This is shown in figure 1.

Incidence and Extent in Age Groups According to Race

Table 2 and figure 1 show the distribution of cases by age and race. Since the records of 1 white and 2 negro selectees (all minimal cases) failed to show the age, these were not included in computing the percentages in this group (table

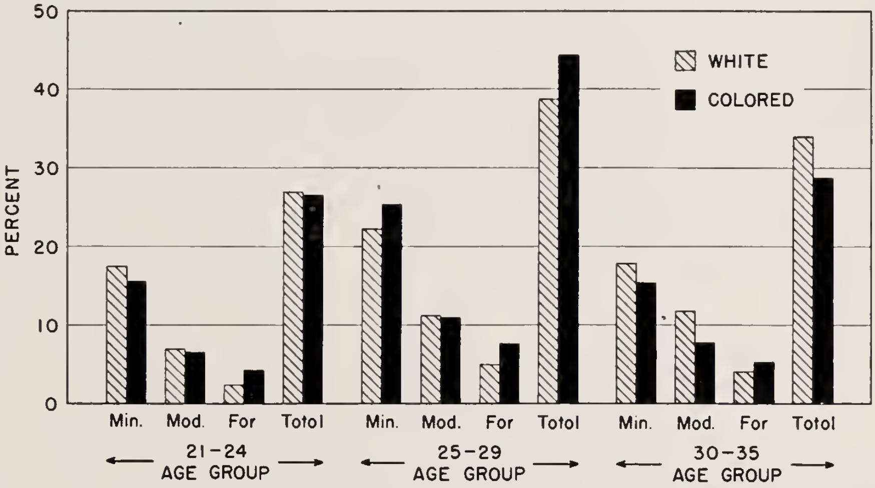

Fig. 1. Incidence of reinfection tuberculosis among white and negro selectees, arranged to show the extent of disease in the different age groups. Percentages for each race are shown. Note higher incidence of far advanced disease in the negro group.

2 and figure 1). In this study the incidence in both the white and negro races is higher in the age group 25–29 than in the age group 30–35.

TABLE 2

Reinfection Tuberculosis; Incidence and Extent in Age Groups According to Race

RACE	MINIMAL		MODERATELY ADVANCED		FAR ADVANCED		TOTAL	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
White								
21–24	37	17.5	15	7.1	5	2.4	57	27
25–29	47	22.3	24	11.3	11	5.2	82	38.8
30–35	38	18	25	11.9	9	4.3	72	34.2
Age not given	1						1	
Total	123		64		25		212	
Negro								
21–24	14	15.6	6	6.7	4	4.4	24	26.7
25–29	23	25.5	10	11.1	7	7.8	40	40.4
30–35	14	15.6	7	7.8	5	5.5	26	28.9
Age not given	2						2	
Total	53		23		16		92	
Other								
21–24	1	14.3	1	14.3			2	28.6
25–29			2	28.6			2	28.6
30–35	1	14.3			2	28.6	3	42.8
Total	2		3		2		7	

This is contrary to the observations of others whose reports leave little doubt that the incidence of reinfection tuberculosis increases with age, and that the death rate from tuberculosis in the general male population as computed by Drolet increases with age.[3, 4, 5] I have no explanation for this apparent discrepancy.

SUMMARY

Three hundred and eleven cases of reinfection tuberculosis found in the X-ray examination of 31,400 selectees from the District of Columbia have been studied and the figures analyzed.

Of this number 311 or 1 per cent had reinfection tuberculosis. Of this group 178 or 57 per cent were minimal, 90 or 29 per cent were moderately advanced, and 43 or 14 per cent were far advanced cases.

Of the 311 cases, 212 or 68 per cent were white, and 92 or 30 per cent were negro. In 1940 the negroes constituted 29 per cent of the population of the District of Columbia. Whereas the incidence of reinfection tuberculosis among negroes in this study is only 1 per cent higher than in whites, in 1942 the death rate in this area was 5.5 times higher among negroes.

No explanation is given for the higher incidence of reinfection tuberculosis in the age group 25–29 as compared to the age group 30–35 in this study. This finding is at variance with many reports in the literature.

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LIVER FUNCTIONS AND TESTS*

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THE liver has a large right lobe and a smaller left lobe. The lobes are further subdivided into smaller units called lobules. In height and diameter these lobules approximate that of the dog, which is about 0.7 mm. Since there are about half a million of these lobules in the dog, there are probably many more in the human.

The essential unit of the lobule is the parenchymal, polygonal, epithelial cell. These are arranged in columns, two in width, radiating out from a central vein situated in the center of each lobule. Surrounding each lobule is connective tissue in which are situated radicals of the portal vein, which brings blood from the spleen and the gastrointestinal tract containing products of digestion, and branches of the hepatic artery, which brings oxygen to the liver cells. They do this by draining into branching sinusoids situated between each two-cell column; after bathing these cells they empty into the central vein which in turn empties into the sublobular vein, which through the hepatic veins empties finally into the inferior vena cava. The sinusoids are separated from the liver cells by a lining of star-shaped cells called Kupffer cells, considered a part of the reticulo-endothelial system. Between this lining of Kupffer cells and the liver cells is also a small channel of lymph, the canal of Disse. Between the two cells forming a column is a small bile channel which carries bile formed in these cells in the opposite direction to the blood flow to the periphery and to a larger bile duct. There is some question whether the small channels between the hepatic cells have a lining, but as these merge with larger ductules the lining is of low cuboidal cells which become columnar as the diameter increases to that of the larger ducts. These interlobular groups of vessels, namely, bile duct, portal vein, and hepatic artery, are spoken of as portal spaces.

The liver is a vital organ, without which life cannot proceed more than several hours. It is advisable, therefore, to review some of its more important functions, so that the surgeon will not jeopardize his patient's life because of the derangements of some of these functions. Some of these known liver functions (Bockus[1]) are:

1. Excretory—bile formation and excretion
2. Metabolic
   a. Carbohydrate metabolism
   b. Protein metabolism
   c. Fat metabolism
   d. Water metabolism
   e. Vitamin metabolism
      Vitamin A from carotene
      Vitamin K into prothrombin
      Storage of vitamin B
   f. Pigment and porphyrin metabolism
3. Detoxification
   a. Chemical—oxidation, conjugation, reduction, etc.
   b. By excretion in bile
   c. Storage and destruction by liver cells
   d. Reticulo-endothelial cell activity
4. Hematopoietic and anti-anemic properties
5. Blood coagulation—fibrinogen, prothrombin, and heparin formation
6. Heat production

Another function not often noted is that the liver, like the spleen, is a reservoir for blood. This becomes apparent when it is noted that the liver receives a great deal of blood through the hepatic artery and portal vein which pools in the sinusoids where the flow is slowed because of the much greater surface area of the sinusoids. This slowing-up process allows a long time for the blood to bathe the hepatic cells and be processed. The processed blood now can be handled by the smaller central vein. The sinusoid thus performs a three-fold function. By its increased surface area it slows the blood flow, thus acting as a blood reservoir; and by the same token, the slowing process allows the hepatic cells to function more efficiently; and the lining reticulo-endothelial cells inspect and police the blood before allowing it to enter the hepatic cells.

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Some of the above-named functions will now be discussed in more detail.

BILE FORMATION

The liver produces about 500 to 1,000 c.c. of bile in 24 hours. It is alkaline, due chiefly to sodium carbonate, and its most important components are bile pigments, bile salts, and cholesterol. The secretion is controlled by vagus or nervous influence, but mostly by chemical influence, especially bile salts, and especially taurocholic acid.

Bile pigments. Bilirubin and its oxidation product, biliverdin, is manufactured, not by the liver cell, but by the reticulo-endothelial system from the hemoglobin of the broken-down red cells. About ten million red cells are formed per second, and an equal number must be eliminated from the circulation. In the destruction of these cells the iron portion is split off from the hemoglobin, leaving bilirubin-globin, the form in which bilirubin is found in the plasma. The liver removes the bilirubin-globin from the plasma, passes it through the polygonal cells, and excretes it into the bile as sodium bilirubinate.

If the destruction of the red blood cells exceeds the ability of the hepatic cells to change it to sodium bilirubinate there will be jaundice. The same may result if there is a partial damage to the liver cells by anoxemia, pneumonia, or pulmonary infarction, in which only a part of the bilirubin-globin will pass through and the excess remains in the blood plasma. The excess of bilirubin-globin in the plasma is known as jaundice of the retention type of Rich. The kidney has a high threshold for bilirubin-globin and does not pass it to the urine. Therefore, in retention jaundice there is no bile in the urine, but there is an excess of bile in the stool. The sodium bilirubinate in the large bowel is changed to urobilinogen and urobilin, some of which is excreted in the stool but a good deal reabsorbed and sent back to the liver and to the kidney, which excretes the urobilinogen. Thus, in retention jaundice there is no bile in the urine, but an excess of urobilinogen; there is an excess of bile and urobilinogen in the stool, and there is a fairly normal hepatic cell which will give normal liver function tests.

If there is a good deal of damage to the liver cells such as occurs in infectious hepatitis, yellow fever, or malaria, the sodium bilirubinate formed in the liver will leak around the damaged cells into the lymph spaces about the cells and into the central vein and so into the general circulation. This means that the serum bilirubin level will rise above the normal 0.5 mg. per cent.

In obstructive jaundice, where there is a block to the biliary system, the liver cells are at first normal and will give normal liver function tests, but the back pressure of the secreted bile will dilate the bile canaliculi and finally rupture them and there is regurgitation into the blood stream. In long-standing obstructive jaundice the cells will become damaged because of pressure, of interference with blood supply, and of being bathed by too high a concentration of bilirubin; the clinical state of biliary cirrhosis with jaundice finally results and liver function will also be impaired. In hepatocellular and obstructive jaundice we have the regurgitation jaundice of Rich. In this type of jaundice we not only have the bile pigment spilling over into the blood stream, but also the bile salts. It is thought that these salts are responsible for the itching in this type of jaundice.

Bile acids and salts. The bile acids, taurocholic and glycocholic, and their salts differ from the pigments in that they are secreted by the liver and not excreted. They are absorbed in the intestine and through the blood are brought back to the liver and re-secreted. High protein diet increases and carbohydrate decreases bile salt formation. The bile salts (a) help keep cholesterol of the bile in solution, (b) facilitate digestive action of all pancreatic enzymes in the intestines, (c) assist in the absorption of the products of fat cleavage, (d) aid the absorption of secretin, (e) stimulate the liver to produce bile, and (f) are essential for the absorption of vitamins D and K and of carotene, the precursor of vitamin A.

The bile acids are produced, concentrated, and destroyed only in the liver. They are absent in fetal bile. After the common duct is obstructed for more than a week they disappear from the hepatic bile and reappear only very slowly after release of the obstruction. There is low concentration of bile acids after operation, and with hepatic damage, and most strikingly with cholelithiasis, which some think is of etiologic significance. The only value of bile for the digestive tract lies in its bile salt content. Since fistula bile shows a marked decrease or even absence of bile salts, the return of this bile to the gastrointestinal tract is of little value. It is far more valuable to give exogenous bile salts by mouth.

Cholesterol. Cholesterol is a higher alcohol, although it is a lipoid in many of its chemical and physical properties. It occurs in the blood both free and as an ester. Total cholesterol in the normal blood averages 150 to 220 mg. per cent, of which the ester is 60 per cent. It is not an excretory product because very little is lost in the feces. It is reabsorbed by the intestine and mucosa of the gallbladder and reutilized. If there is a rise in the percentage of free to ester cholesterol fraction there is an indication of a lowering of the functional reserve of the liver. Cholesterol is said to protect the red cell from hemolysis.

Carbohydrate Metabolism

The liver stores glycogen, which can easily be converted into glucose on demand. The glucose is obtained from ingested carbohydrates and from breaking down of some of the amino acids to glucose and urea. The liver can also form glycogen from the glycerol portion of fat molecules and some of the fatty acids as well as from lactic and pyruvic acid. An ample reserve of glycogen is of great value in preventing injury to the liver from toxic agents. The more important function of the liver is to maintain the level of blood sugar.

Protein Metabolism

The amino acids which are not immediately necessary for protein synthesis are disintegrated by the liver by deaminization, producing ammonia, which is converted to urea and excreted in the urine, and glucose, which may be stored as glycogen or oxidized for energy. The liver is involved in the manufacture of the serum proteins, albumin, globulin and fibrinogen, as well as prothrombin, now considered an albumin fraction. It is now well established that glucose alone is not sufficient to protect the liver in certain diseases, but that sufficient protein is also very necessary to prevent fatty degeneration.

Fat Metabolism

The most important function of the liver in this respect is in the secretion of bile acids to promote the digestion of fats by the pancreatic and intestinal enzymes. It has also the function of converting saturated fatty acids into nonsaturated ones which are more readily oxidized. If for any reason the liver glycogen is not available for combustion as glucose, either because it has all been used up or because the oxidation of the glucose is interfered with, then fat is transported to the liver as the next most utilizable source of energy.

In the oxidation of fatty acids (beta oxidation and acetic acid condensation—theory of Mackay) ketone bodies are produced which are finally catabolized to carbon dioxide and water. The liver seems to be the largest source of ketone bodies in the body.

Phospholipids, formed during absorption of fatty acids from the intestine, are intimately related to fat deposition in the liver. Lipotropic substances, such as choline, the active principle of lecithin, and methionine in the protein molecule, decrease the rate of deposition and accelerate the rate of removal of liver fat, in contrast to cystine, which aids fat deposition. Dragstedt believes that the pancreas contains or manufactures a substance other than choline, lipocaic, which is capable of preventing fat deposition in the liver.

LIVER FUNCTION TESTS

The functions, both known and unknown, are many and varied. In recent years many tests have been elaborated to test these functions as an aid in diagnosis and treatment. Before discussing the more important and useful tests it is important to note their limitations.

1. Since there is a multiplicity and complexity of functions, marked impairment may occur in one function and go along with normal activity in another.

2. The liver is a dynamic organ, and tests may give varying results from day to day. Hence, minor deviations from the normal must be interpreted very cautiously.

3. The liver has a remarkable regenerative power, and there exists a great margin of safety. A good deal of damage may be masked by this regeneration and a good deal of destruction may have to be present before certain of the functional tests will reveal such damage.

4. Inadequate use and faulty interpretation of tests must be avoided. One test of liver function is worse than none.

In short, a group of tests properly selected, whose limitations and shortcomings are known, and if repeated, will, if correlated with the clinical findings, be of extreme value. Hoffbauer and his group have recently pointed out the value of such composite liver functional studies. They have set up a graphic form which by their patterns may aid in providing information about the type of disease and prognosis.

To the surgeon it is most important to know (1) whether the liver will withstand surgical intervention on some other organ; (2) whether a jaundice is a surgical jaundice or a medical jaundice; (3) whether an obstructive jaundice is intrahepatic or extrahepatic; (4) whether the obstructive jaundice is complete and unrelenting, usually but not always bespeaking a malignancy, or whether it is incomplete, usually but not always due to common duct stones or stricture.

The differentiation of the hemolytic from other types of jaundice offers very little difficulty and is rarely a diagnostic problem. There is acholuric jaundice, and the van den Bergh reaction is entirely indirect.

The following are tests that have been most helpful in the diagnosis of liver disease and the cause of jaundice. Some of these tests are not tests of function, but are measurements of products of secretion or excretion and thus reflect some of the liver conditions that may be present.

1. *Bromsulfalein test.* It consists of the ability to excrete this dye, which is given intravenously. Normal values are from 0 to 5 per cent retention in 45 minutes. It should not be used in the presence of jaundice. Its chief value is in the nonjaundiced patient in whom serious liver disease is suspected. Operative procedures are contraindicated if a good deal of retention is present, unless there is improvement by intensive medical therapy. It is especially useful as a preoperative precautionary test in gallbladder disease.

2. *Intravenous hippuric acid test.* This is the same as the oral test but is more accurate, avoids nausea and gastric upsets, takes one fourth the time, and is more sensitive. It is easy to perform, although not as sensitive as the bromsulfalein test or not nearly as sensitive as the cephalin-flocculation test. It is based on the metabolic and detoxifying mechanism of the liver (conjugation). It can be used in the presence of jaundice, but the kidney function must not be impaired. It is very useful in preoperative

evaluation of liver insufficiency in cholecystic disease.

3. *Prothrombin time and response to vitamin K.* It is based on the ability of the liver to synthesize prothrombin. A decrease in the blood prothrombin occurs as a result of (1) decrease in available vitamin K, (2) absence of bile salts from the intestine, and (3) serious liver injury which interferes with utilization of vitamin K for prothrombin formation. Blood prothrombin concentration may be decreased even though other liver function tests give normal responses. Absence of bile from the intestine due to obstruction may cause prothrombin deficiency even though the liver is normal. If vitamin K (Menadione), 2 mg., is given intramuscularly there should be a rise of 10 per cent or more in the plasma prothrombin in 24 hours if the liver is normal. If there is a rise of less than 10 per cent in 24 hours and less than 15 per cent in 48 or 72 hours, intrahepatic disease is likely. The operative mortality and risk under these circumstances is bad. Ivy thinks this is the most practical of all tests of liver function.

4. *Cephalin-cholesterol flocculation test.* This test is dependent on some alteration in the globulins of the serum which permits them to fix and precipitate the colloids of a ripened cephalin-cholesterol suspension. The test is read in terms of 0 to 4 plus, the 4 plus indicating complete precipitation or flocculation of the lipid emulsion. The test is a highly sensitive one, but it is not a functional one. It is, rather, an index of active disease of the liver parenchyma. For that reason it has prognostic as well as diagnostic value. It loses some of its value in the differential diagnosis of jaundice cases. In early cases of jaundice a 4-plus reading would indicate intrahepatic disease. Certainly in those cases of obstructive jaundice with a negative cephalin-cholesterol flocculation test it would point to extrahepatic disease.

5. *Thymol turbidity.* This test is based on the same principle as the cephalin test but is not too accurate because of the variability in standards. Its only advantage is that it can be read in half an hour. It is used as confirmatory to the cephalin test.

6. *Van den Bergh reaction.* It is based upon the fact that in the presence of bilirubin Ehrlich's diazo reagent gives a specific color reaction. The quantitative test is best. It measures the amount of bilirubin in the serum, being the best guide to the intensity of the jaundice and the most accurate way of following its course. The normal is 0.1 to 1 mg. per cent, with an average of 0.5 mg. per cent.

7. *Bilirubinuria.* Bilirubin in the urine may be detected by the greenish-yellow or light brown color of the urine, but more especially by the yellow color imparted to the foam after shaking. Other tests are the Gmelin, methylene blue, or spot test.

8. *Urobilinogen in the urine and stool.* This test depends on the color reaction the substance gives with Ehrlich's aldehyde reagent. Bilirubin is converted to urobilinogen by the reducing action of colon bacilli in the intestine. If biliary obstruction is complete, bilirubin cannot reach the intestinal tract and urobilinogen formation must cease, and it is no longer to be found in the urine, or feces for that matter. Malignant disease usually causes complete and unrelenting biliary obstruction and urobilinogen will disappear from both urine and feces. Jaundice due to calculous obstruction or hepatocellular disease rarely causes complete obstruction for more than a few days. Repeated examinations of the urine are of value in the differential diagnosis of jaundice. Single reports may be misleading.

9. *Cholesterol and cholesterol esters.* The normal average is 220 mg. per cent, of which the ester is 50 to 70 per cent. In obstructive jaundice it is usually high, and in hepatocellular jaundice it is normal or subnormal. If subnormal in cases of cholelithiasis, liver function should be investigated before operation. If the ester percentage falls below 50, the test is an indication of a dangerously failing liver function. It is of more use in prognosis than diagnosis. Repeated tests correlated with clinical findings are of value.

10. *Serum proteins.* The normal is 6.5 to 8 mg. per cent, of which albumin is 4 to 5.5 mg. per cent and the globulin 1.5 to 3.0 mg. per cent. Advanced liver disease shows hypo-albuminemia. The serum protein determination is of most value in postoperative cases to follow the progress of recovery.

11. *Alkaline phosphatase.* The normal is 1 to 4 Bodansky units. In obstructive jaundice without hepatic damage the phosphatase is often markedly elevated. In hepatocellular damage it usually approximates 10 Bodansky units. The value of this test in the differential diagnosis of jaundice is controversial.

12. *Icterus index.* This is a comparison of the serum color with a standard potassium dichromate (1:10,000) solution. It is a simple, inexpensive test to measure serum bilirubin if there is no hemolysis and if carotinemia can be excluded. The normal is 5 to 7 units; 15 is subclinical jaundice. It is of value in following increase or decrease of serum bilirubin.

13. *Duodenal drainage.* A Rehfuss tube is passed and the flow of bile is stimulated by injecting 30 c.c. of a 50 per cent solution of magnesium sulfate diluted to 100 c.c. Bile is obtained and examined grossly and microscopically. If it can be definitely proved that the tip of the tube is in the duodenum and no bile is obtained, it is certain that a complete obstruction to the flow of bile is present. It must be remembered that in some severe cases of hepatitis early in the disease there may be no bile passing the sphincter of Oddi.

Gross examination is important mainly for the presence of blood. That is presumptive evidence of a malignant lesion of the ampulla of Vater, although it may be present also in malignancy of the head of the pancreas and biliary tree. Failure to find blood does not rule out malignancy.

Microscopic examination is made for pus and the estimation of the bile-stained pus cells as to number. Bile-stained bacteria, exfoliated cells from the biliary tree, calcium bilirubin pigment, cholestrin crystals, parasites such as *Giardia lamblia*, hookworm, or Strongyloides may be found. The presence of calcium bilirubin or cholestrin crystals or both makes it quite likely that there are stones present. In those cases that could be verified by surgery, the test was found to be accurate in 94 per cent of the cases at the Lahey Clinic. It is time-consuming and a little trying to the patient, but of great value at times.

Many other tests have been devised and have had enthusiastic proponents, but their value has decreased because of the lack of substantiation by others. Some tests which may be of value in certain cases are various tests based on carbohydrate metabolism, such as the glucose, levulose, and galactose tolerance tests. In some cases liver biopsy and Thorotrast X-ray examinations may be of help. Also, although not belonging to this category, the serum amylase and serum lipase tests may be of extreme value in differential diagnosis.

In the final analysis, no test can replace a thorough history, a painstaking examination, accurate observation, and good clinical judgment.

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SIR DOMINIC CORRIGAN AND THE DEFORMED HEART VALVES

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IT WAS not so very long ago that physicians realized that the contracting heart muscle made sounds, and that when one listened to those sounds he could learn a great deal about the condition of the heart. It was William Harvey who discovered the circulation of the blood, listened to the sounds that the heart made at its work, and believed that they might be of some value in eliciting vital information about that organ and its function.

There was Dr. Robert Hooke, an original thinker who was far ahead of his time. Living more than a hundred years before René Laennec, who invented the stethoscope and made the eliciting of heart sounds less arduous, Dr. Hooke speculated with some degree of imagination on sounds that the internal organs made and what these sounds might mean. Wrote Dr. Hooke:

"There may also be a possibility of discovering the internal motions and actions of bodies by the sound they make. Who knows but that, as in a watch, we may hear the beating of the balance, and the running of the wheels and the striking of the hammers and the grating of the teeth and multitudes of other noises; who knows, I say, but that it may be possible to discover the motions of the internal parts of bodies, whether animal, vegetable, or mineral, by the sound they make; that one may discover the works performed by the several offices and shops of man's body, and thereby discover what instruments or engine is out of order, what works are going on at several times, and lie still at others, and the like.

"I have been able to hear very plainly the beating of a man's heart, and it is common to hear the motion of the wind to and fro in the guts, and other small vessels; the stopping of the lungs is easily discovered by the wheezing, the heart by the humming and whistling noises, the slipping to and fro of the joints, in many cases by crackling, and the like. . . . So to their becoming sensible they require either that motions be increased, or that the organ be made more nice and powerful to sensate and distinguish them."

Somewhat later there appeared Dr. René T. H. Laennec, who at the age of 25 had a brilliant idea. One day crossing the courtyard of the Louvre he saw some children listening at one end of a beam of wood to the sound made by striking with a pin on the other end. He had the inspiration to try the same trick when listening to sounds in the chest.

He made the first crude stethoscope entirely out of wood, but it magnified the heart sounds astonishingly, and he heard things that no doctor had heard before. For 2 years he went from patient to patient listening through the stethoscope. At the end of that time he wrote a book on the subject and gave a very learned lecture before the Academy of Sciences.

Dr. Laennec rapidly found disciples, bright young medical men who took up the new instrument with enthusiasm. There were several young English doctors who were firm believers in auscultation. Among them was Dr. William Stokes, who wrote a very thorough book on the new medical art.

Dr. Stokes had graduated from Edinburgh in 1825. In the same class was another Irishman, Dominic John Corrigan, who was destined to play an important role in learning to understand the language of the heart. Dr. Corrigan settled in his native Dublin and busied himself with dispensary work. But he was mostly interested in the heart, especially in the information that the heart sounds conveyed.

Within 5 years Dr. Corrigan had learned a sufficient number of brand-new facts to write an article entitled "On the Motions and Sounds of the Heart," which he published in 1830. From then on Dr. Corrigan began to devote most of his time to studies on the valves of the heart. He learned to know what these different sounds meant and what type of valve deformity they represented.

The modern doctor is thoroughly acquainted with heart sounds. When he places his stethoscope over the heart he hears a variety of sounds and he knows just what each means. In the normal heart he hears 2 sounds resembling lub-dup; that is, the first sound sounds like lub and the second like dup. The first sound is due to the contraction of the power parts of the heart. The second is due to the slap produced when the aortic and pulmonic valves close.

When these sounds are replaced with murmurs the examining doctor begins to suspect that the heart is not as it should be. A murmur means just that. Instead of a clear, snappy sound the doctor hears a murmuring sound. There may be a normal first sound and a murmuring second sound, a murmuring first sound and a normal second sound, or both sounds may be replaced by murmurs.

Murmurs are produced by a variety of conditions, and mostly these relate to the heart valves. Thus murmurs are produced when the valves are too stiff and short to close, when the valves fail to close at the proper time, when the surfaces of the valves are roughened so as to prevent the smooth flow of blood over them, or when the orifices which the valves are meant to close are dilated as a result of dilatation of the heart chamber of which they form the entrance or exit.

The presence of any of these conditions gives rise to eddies in the blood current, and these are directly responsible for the murmurs that the doctor hears.

The full significance of these various murmurs was established by Dr. Corrigan. His account of aortic incompetence was entirely original, full of careful clinical observation and thought. He gave a systematic account, based on 11 cases, and he was rather optimistic in his opinion that such patients are not likely to die suddenly. He advocated the use of digitalis, blood-letting and other depletory measures as indicated in the treatment of this heart condition.

Dr. Corrigan devoted a great deal of thought to diseases of the valves and how they could be diagnosed and treated. He discussed stenosis of the valves of the aorta which gave a slow pulse. He found that when the valves failed to come together properly the pulse is "invariably full and swelling."

Concerning treatment for diseases of the valves of the aorta Dr. Corrigan said: "A little reflection on the nature of the disease before us will show that these principles (general and local bleedings, restricted diet, and digitalis) are inapplicable both to the treatment of the valvular alterations, and of the hypertrophy of the left ventricle which accompanies that alteration. The physical condition requires hypertrophy and so we need strengthening of the general constitution, which will give proportional vigor to the heart. Hence there should be general and sufficient diet of animal and vegetable food, and at the same time abstinence from those beverages, such as malt liquors, which increase the mass of the fluids. The patient may attend to business or profession, but should avoid so much attention as to produce debility. . . . And as there is among patients who have learned that they are afflicted with heart disease a universal dread of sudden death, it is necessary to undeceive them on this point; and in the present instance it can be done with perfect safety, as the termination of the disease is never sudden."

Dominic John Corrigan was born December 1, 1802 and led a full, busy, productive life until 2 years before his death from a stroke, February 1, 1880. Like many Irishmen of the period he was familiar with French; as a Catholic, educated in a Seminary school, he knew Latin, and he quoted Greek at least once in a public address. His knowledge of the physics of the time was sound. He was one of the few men of whom it has been said that he was a classic in his lifetime. One who had been a pupil has recorded that his portrayal of disease has never been excelled for terseness and accuracy. He never lectured more than half an hour at a time.

As a physician he was one of the best known of his time. His professional income was said to have exceeded that of any other Dublin physician. Black-balled when he first sought election to the Irish College of Physicians, he was later elected to membership and served 5 terms as president. He was made a baronet in 1866, was appointed Physician-to-the-Queen in Ireland, and was in Parliament from 1870 to 1874.

Although he was not much of a politician he took his duties seriously. He usually voted with the liberals, opposed Home Rule, and favored Sunday closing. He represented the Senate of Queen's University of Dublin on the General Medical Council of Great Britain for many years. He was a staunch advocate of better medical education.

Dr. Corrigan was one of the founders and a president of the Pathological Society of Dublin. An ardent zoölogist, he was president of the Royal Zoölogical Society of Ireland, and while in Parliament it was his habit to take the Friday night steamer in order that he could breakfast with the Council on Saturday morning.

Although Dr. Corrigan was concerned with all phases of medicine, it was with diseases of the heart that he was most concerned. His special attention was directed to the aorta, the greatest artery of the body, as well as the heart.

Diseases of the valves of the heart were associated with a variety of structural changes, Dr. Corrigan pointed out. Thus he recognized cases in which "the valves may be tightened or curled in against the sides of the aorta," cases in which the "valves without any proper lesion may be rendered inadequate to their function by the dilatation of the mouth of the aorta," and others in which "one or more of the valves may be ruptured."

The visible pulsation of the arteries of the head and arms and the murmur synchronous with the collapse of the arteries in the neck were graphically described by Dr. Corrigan. "In these cases in which the deficiency of the valves is considerable, allowing a full stream of blood to rush back into the ventricle, there is heard in the ascending aorta a double bruit . . . and in listening to the two sounds constituting this double *bruit de soufflet*, the impression made distinctly on the ear is that the first sound is from a rushing of blood up the aorta, the second from a rushing back into the ventricle. It is impossible to conceive the distinctness with which the impression described is made on the ear." Said Dr. Corrigan: "The heart in all the cases that occurred was enormously enlarged and its bulk arose from the state of the left ventricle."

Dr. Corrigan was the first to recognize the true significance of enlargement of the heart: "In such circumstances, nature, to enable the heart to perform the additional labor thrown on it, increases its strength by the addition of muscular fiber, and the heart thus becomes hypertrophied, in accordance with the general law that muscular fiber becomes thickened and strengthened when there is additional power required from it. Is this hypertrophy disease, or is it a wise provision of nature, by which the organ is thus made equal to the increased labor it has to perform? On the answer depends the treatment to be adopted; and on this there is no room for hesitation. A heart of ordinary strength could not, under the circumstances, carry on the circulation; and nature then wisely endows the heart with the requisite degree of strength. It is at once obvious that to interfere with this wise provision of nature, to diminish the strength of the heart, or, if we choose other words, to direct, according to the advice of Laennec, Bertin, etc., our meas-

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President's Page

WHAT DO YOU THINK?

The American Medical Association's first intensive publicity campaign against "socialized medicine" has just been concluded.

A few of our Society members decry the methods used by the AMA in presenting its views—the extravagant language, the appeal to the emotions rather than to the intellect, and the rather flamboyant printed material. These physicians see a danger of the AMA being engulfed in a national political struggle where no holds are barred, with the inevitable loss of prestige and respect that may follow in its wake.

On the other hand, there are many among our members who feel that vital issues are at stake and that organized medicine must fight it out with those who would regiment the medical profession, that an effective appeal must be made to the masses, and that the type of campaign now being carried on by the AMA is the best approach. They believe the language is direct, a spade being called a spade, and that the kind of pamphlets and other piece-material used are well considered and wise.

What is your feeling in the matter? I should very much like to know. You can communicate with me directly, or through any member of the Executive Board or the Secretary of the Society.

Wm. M. Ballinger

Editorials

ADVICE TO MEDICAL STUDENTS*

To be a medical technician is not enough. The diagnosis of disease and the administration of physic are not enough. You may know all about every body cell from those of the hair of your head to the cuticule on the soles of your feet and yet be lacking. I do not depreciate the technics you learn. Physical ministration is necessary, most necessary, but it is but a beginning. You need a thorough grounding in such knowledge and skill as a basis of service. You need this plus, and the plus is the important part of your calling. The plus is made up of the spiritual elements that permeate life. As you learn, have constantly in mind that your satisfactions are going to be found in enabling those you serve to find a more complete and higher way of living. If in your professional life you accomplish this, you will get your greatest compensation, for

> "You will walk with God upon the hills,
> And see each morn the world arise.
> Nature to your spirit undefiled, will make
> answer as a little child.
> Unveiled before your eyes she will stand
> And give her answers to your hands."

So, I pray that you will be blessed in your preparatory days, constantly remembering that in your day the world needs your contributions—contributions made by fearless men who understand the spiritual life about them. It is good to be with you as we consecrate ourselves to the great profession of medicine.

Cloyd H. Marvin, Ph.D., LL.D.
President, The George Washington University

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* From a brief address at the Opening Assembly of the George Washington University School of Medicine by President Cloyd H. Marvin, September 18, 1950.

REHABILITATION—A COMMUNITY RESPONSIBILITY

Chronic illness has become a major challenge to American medicine, for, while acute diseases can to a great extent be controlled and their duration shortened, the incidence of long-term illness is increasing. This is evidenced by the fact that the majority of our hospital beds are occupied by patients having long-term illnesses, such as cardiac diseases, tuberculosis, cerebral vascular disturbances, arthritis, and orthopedic and neurologic disorders. Unfortunately, despite the prevalence of chronic disease, many institutions are still geared to provide care only for those patients having acute medical and surgical problems.

As might be anticipated, in charitable hospitals it is extremely difficult to discharge chronically disabled patients. They either do not want to leave the protective confines of the institution or their families cannot or will not assume the responsibility and the financial burden of caring for them. As a result, many such patients may occupy hospital beds at great expense to the community until they expire, are discharged to their homes unimproved after a long hospital stay, or are placed in convalescent homes where the facilities for care are even less adequate than in the hospital. In the latter two eventualities the financial drain on the community continues.

It is a well-established fact that even in the healthy young population, enforced physical inactivity will result in a negative nitrogen balance and muscular atrophy, a negative calcium balance and osteoporosis, a loss of vascular tone, and marked personality changes. It should be very obvious that restriction of physical activity in a person with a medical disability would result in even more profound functional and organic changes which would be additive to the preëxisting incapacity and would catalyze the processes leading to complete mental and physical deterioration. Patients having chronic disease who are not given the opportunity of living within the maximum limits of their physical capabilities (even if this capability is restricted to caring for themselves) can hardly avoid losing at least some of their self-respect and *raison d'être*. Thus, an apathetic attitude toward the general problem imposes an injustice upon the individual as well as upon the community.

If nothing else could be done for these people, we should at least build a large number of comfortable convalescent homes for them and or provide their families with sufficient financial and professional assistance so that the patients might receive adequate care. Fortunately, such an expensive and hopeless undertaking is not the sole solution of the problem. A large number of these patients may be partially or completely restored to usefulness in society. Rusk and other pioneers have convincingly demonstrated that the present waste of our human resources may be considerably reduced by the establishment of a well-rounded rehabilitation program. The purpose of such a program is to prepare and train in appropriate trades persons of work age whose vocational possibilities are limited by disability. The principal desiderata in the modern rehabilitation of any given patient may be summarized as follows:

1. Immediate treatment (surgical or medical) of the injury or disease so that further progress will be arrested and maximum function will ultimately be attained.

2. Physical restoration, including appraisal of capacity and willingness to work, physical therapy, occupational training, and prosthesis.

3. Sociologic restoration, including vocational guidance and placement and guaranteed security for the family during the training period.

It may be argued that the costs of such a program would be prohibitive. In this regard it should be interesting to quote part of a recent release from the State of Virginia's Department of Vocational Rehabilitation: "At an average per capita cost of $432 during the 1949–50 school year, 1,289 disabled persons completed rehabilitation training and went to work at wages aggregating $1,748,700 a year." The cost of maintaining these people as invalid public charges probably would have exceeded $2,000,000 annually. By rehabilitation, the State of Virginia not only saved three fourths of this cost, but was also relieved of financial obligation toward 2,187 dependents!

From the preceding discussion, the need for a well-rounded rehabilitation program for disabled members of the medically indigent population in the District of Columbia can easily be recognized. The past failure to develop such a program has been chiefly caused by the lack of adequate hospital facilities for physical and sociologic restoration. In a recent survey of the Gallinger Hospital population by an expert in the field of rehabilitation, it was estimated that over 20 per cent of the approximately 1,200 patients were worthwhile candidates for rehabilitation. At the time of this survey in February, 1950, there were eleven paraplegics, and all had been hospitalized for over a year, one since 1948. The survey stated: "At the present cost of $11.25 per day per patient for 365 days a year, approximately $48,000 is being expended yearly for these eleven cases. Little is being done to fit them with braces, to teach them how to care for themselves, to walk or travel, and there is no vocational counseling service to assist them in learning and finding a trade which they can carry out in terms of their disability. If these people learn to take care of themselves, to develop a source of income, then they will no longer be welfare charges and, in turn, will become taxpayers themselves. The sum of $48,000 represented above is a never-ending cost because it represents only acute medical and surgical care; whereas, the establishment of a Department of Physical Medicine and Rehabilitation within this hospital would remove the burden of continuous care of these patients from Gallinger Hospital and the District of Columbia." It should be pointed out that the above statistics referred to the eleven paraplegics alone and did not include the large number of patients with other chronic disability who could also be served by a department of physical medicine.

Through the coöperative efforts of various agencies, a rehabilitation program is now being developed at Gallinger Hospital. The Chronic Disease Division of the Public Health Service has assigned an outstanding physiatrist and two well-trained physical therapists to the hospital for the purpose of participating in a pilot study aimed at establishing a community pattern for the provision of well-rounded services for the medically indigent. The Commissioners have made possible the purchase of essential equipment for a department of physical medicine and are considering a larger budgetary appropriation for this department in the coming year. It is planned to work in close coöperation with the D. C. Rehabilitation Service of the Federal Security Agency. They will assign occupational therapists and will coöperate in the phase of the program concerned with vocational guidance, training, and placement of the patients. Rehabilitation will be integrated with the Home Care Program of the hospital, and in this way prolonged hospitalization will be obviated in many cases where rehabilitation may adequately be carried out in the home.

It is hoped that this will be only the beginning of a well-rounded rehabilitation program and that in the future through the coöperative efforts of interested individuals and groups, there will be developed, as in New York City, an Institute of Rehabilitation and Physical Medicine that will care for many more patients in the District of Columbia. In time and with well-directed energy it should be possible to re-verify the statement that it is economical to practice good medicine.

Joseph F. Fazekas, M.D.
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THE AMERICAN ACADEMY OF GENERAL PRACTICE

"A well trained, sensible family doctor is one of the most valuable assets in a community."—*Sir Wm. Osler*

On June 10, 1947 a group of general practitioners, firmly convinced that general practice is the basic foundation of good medical care in the United States of America, established the American Academy of General Practice. After 3 years since its formation there are now 15,000 members representing every state in the Union, Alaska and Hawaii. There are active chapters functioning in 47 states and in the District of Columbia.

In the words of its constitution, a general practitioner is "a licensed physician and surgeon who holds the degree of Doctor of Medicine and who does not limit his practice exclusively to a particular field of medicine or surgery." Dr. Donald G. Anderson, who is Secretary of the Council on Medical Education and Hospitals of the American Medical Association, has well defined the general practitioner as follows: "A general practitioner is someone who acts as a family physician and medical consultant; who is prepared to provide definitive care for the majority of common illnesses and to advise when the services of a specialist are needed. In addition, the general practitioner serving isolated areas should be qualified to provide definitive treatment or advanced emergency care for all types of illnesses."

The basic philosophy of the American Academy of General Practice is to improve the standards and quality of general practice among general practitioners, who render more than 80 per cent of the medical care furnished in this country today.

The purposes of the Academy, as set forth in its constitution, are as follows:

1. To promote and maintain high standards of medicine and surgery.

2. To encourage and assist young men and women in preparing, qualifying, and establishing themselves in general practice.

3. To preserve the right of the general practitioner to engage in medical and surgical procedures for which he is qualified by training and experience.

4. To assist in providing postgraduate study courses for the general practitioners and to encourage and assist practicing physicians and surgeons in such training.

5. To advance medical science and private and public health.

To be eligible for membership in the Academy, a candidate must be a graduate of an approved medical school with a minimum of a 1-year rotating internship in an approved hospital; a member of his county medical society; licensed to practice medicine and surgery in the state in which he resides; and he must be of high moral and ethical character. In addition, he shall have been engaged in general practice for at least 3 years preceding the date of his application for membership, and during that period he shall have engaged in some postgraduate educational activities, at least by attendance, such as hospital staff meetings, county, state and national society meetings, refresher courses, and/or formal courses.

To retain active membership a member must spend a minimum of 150 hours in postgraduate training of a nature acceptable to the Membership Committee during a period of 3 years. The American Academy of General Practice recognizes the American Medical Association as the parent organization of the medical profession in America. Its aim is to work in coöperation with and in close harmony with the AMA. Membership in the AMA is a prerequisite to membership in the AAGP.

The 1950 Scientific Assembly of the American Academy of General Practice was held in St. Louis last February. I had the privilege of attending this meeting as a delegate. There was a registration of over 5,000 physicians and guests, and the meeting was an outstanding success. It is reasonable to predict that the forthcoming assembly in San Francisco in March 1951 will surpass the St. Louis attendance by a few thousand.

The American Academy of General Practice has been and still is the fastest growing group ever established in the history of American medicine.

In April of 1950 the first edition of the general practitioner's own medical journal was published and sent to Academy members. This journal is called *GP*. The papers and discussions contained therein are for the benefit and education of the general practitioner.

It is with great pride and interest that Academy members note that Dr. Rufus B. Robins, a general practitioner and speaker of the Academy's Congress of Delegates, has been elected Vice President of the AMA this year. Dr. Robins is in active general practice and is Professor of Medical Economics at the University of Arkansas School of Medicine.

One of the Academy's many accomplishments in the short period of time since its formation has been to present to the various accredited hospitals throughout the U.S.A. the manual on "The Establishment and Operation of a Department of General Practice in Hospitals." This manual was prepared by the Committee on Hospitals of the AAGP. This was so well received by the various hospitals that, as a result of the increased emphasis on general practice today, many of these institutions have started a 1-year general practice internship and, in many cases, a second year residency in general practice training. These hospitals recognize the importance of presenting certain subjects to the intern by general practitioners of recognized ability. In order that they may be privileged to present these subjects to the intern, many hospitals have appointed general practitioners to the active teaching hospital staff. The University of Minnesota, Yale University, University of Rochester, Albany Hospital, University of Colorado, University of Kansas, University of Michigan, Charity Hospital of Louisiana, St. Francis Hospital of California, and others are among the many schools which have undertaken a general practice training program.

The local chapter of the Academy has scheduled a series of lectures for the 1950–51 term. Attendance at these lectures is accepted toward the 50 hours of formal postgraduate study required to retain active membership in the AAGP.

The District of Columbia Chapter of the American Academy of General Practice is an active group of members interested in following the basic philosophy of the Academy so that they may be better general practitioners and, as Osler states, assets to their respective communities.

I. Phillips Frohman, M.D.
President, District of Columbia Chapter, American Academy of General Practice

1950 CHRISTMAS SEAL SALE

Christmas Seals will go on sale in the District of Columbia, and all over the Nation, on November 20. This will mark the 44th year that we have had an opportunity to buy Christmas Seals in support of the work of the District of Columbia Tuberculosis Association.

Older than the Seal Sale itself by some four years, our District Association has fought tuberculosis since 1903, when it was organized as the Committee on the Prevention of Consumption. Since that year, the death rate from tuberculosis in the District has been cut by 71 per cent. From first cause of death in 1903, TB has been forced down to fifth place.

The reduction in our TB death rate has not, however, kept pace with that of the Nation. For the country as a whole tuberculosis ranks seventh, as cause of death, instead of fifth. The death rate from tuberculosis for the Nation is currently given as 26.1 per 100,000; in the District it is 50.9.

To help solve this health problem, the voluntary Tuberculosis Association, financed solely by the sale of Christmas Seals, engages in four major activities, education, case-finding, rehabilitation, and social research. Through its affiliation with the National Tuberculosis Association it shares in the support of a broad program of medical research.

Consideration of Association activities in light of the unmet need for tuberculosis control in the District brings us to the conclusion that strengthening of each activity is in order. There can be no letup in the education of people about the problems of tuberculosis and their individual responsibilities for prevention and control. The unknown cases of tuberculosis must be found, and found quickly. This will involve periodic chest X-rays for the entire adult population. Extensive social research can give guidance to the most feasible solution for problems of insufficient beds for tuberculosis patients, of inadequate social services, of relieving economic distress of tuberculosis patients and their families. Rehabilitation, a recognized part of treatment, is entirely lacking in the chest clinics and is given but little attention in the hospitals. Patient education and the search for tuberculosis among patients admitted to general hospitals and clinics are two phases of control awaiting development.

The District of Columbia Tuberculosis Association is one of 3,200 voluntary associations affiliated with the National Tuberculosis Association which will begin the sale of Christmas Seals on November 20 for similar tuberculosis control programs throughout the country.

Richard E. deButts, M.D.
Chairman, Subcommittee on Diseases of the Chest

In and Out of Focus

BY THE OBSERVER

The Assembly at Mid-Century

The 21st Annual Scientific Assembly is now history. Any way you look at it, it was the most successful Assembly to date. There were several reasons for this, among them being the excellence of its scientific program and exhibits, the generous support given by national organizations and institutions, and the unusual interest shown in the Assembly by the medical profession and those engaged in allied activities.

It hardly needs to be emphasized that if a meeting of this type is to succeed it must be sound at its core, which is its scientific program. Unless it measures up to the highest possible standard scientifically, failure is nearly a foregone conclusion. The Program Committee under the chairmanship of Dr. Thomas McPherson Brown did its job well. This is attested to by the continuously large attendance at scientific sessions throughout the three days.

Seldom has there been such unanimous praise for the Scientific Exhibit. Representatives of national medical organizations present at the Assembly were enthusiastic about several of the exhibits. One of them stated it was the finest display from the standpoint of quality which he had seen at a regional medical meeting. He indicated that some of the exhibits would be shown at a national meeting if the exhibitors accepted the invitations which would be extended to them. The committee appointed to select the exhibits deserves a great deal of credit. Dr. William J. Tobin and his co-workers were tireless in their efforts to obtain the best exhibit material possible. They and the exhibitors are to be congratulated on a task well done.

An important feature of the scientific program this year was the color television program, for which the Society is indebted to the Smith, Kline and French Laboratories. The Laboratories went to considerable expense to make this innovation in medical teaching available to physicians attending the Assembly, and it played no small part in the meeting's success. Surgical and medical clinics were presented by the medical staffs of Georgetown and George Washington University Hospitals. They had been carefully planned in advance by Dr. Robert S. Smith and those associated with him on the Committee on Radio and Television.

Dr. Lloyd G. Lewis, Professor of Urology at Georgetown University, (his back to camera, at left) performs operation at Gallinger Hospital which was televised in color to the Hotel Statler.

The laity were not lost sight of in the plans for this year's Assembly. The Public Health Exhibit, like its opposite in the scientific field, was enthusiastically received. Among the new exhibits which won favorable comment was one sponsored by Medical Bureau. Bureau personnel in charge of the booth performed a valuable service during the meeting. All calls for physicians were handled by them. Dr. Henry D. Ecker and the Committee on Public Health Exhibits deserve special praise for their discrimination in the selection of exhibits. Thanks should also go to the sponsors who contributed the funds which made the Exhibit possible and to the exhibitors, who spared neither effort nor expense in constructing their displays.

MEDICAL BUREAU
FOR THE CONVENIENCE OF THE PUBLIC
MEDICAL BUREAU

MRS. ELIZABETH M. LENDERMAN AND MISS MARY M. McCAMBRIDGE "manned" the MEDICAL BUREAU Booth at the ASSEMBLY.

The Blue Cross-Blue Shield Commissions made a most valuable contribution. Not only did they furnish an interesting exhibit, but they were also responsible for the largest Public Meeting from the standpoint of attendance in many years. The Presidential Ballroom was filled to capacity to hear a program featuring Dr. Richard Gerstell of the Civil Defense Office of the National Security Resources Board. Dr. Gerstell spoke on "You Can Survive an Atomic Bomb."

There was a galaxy of national figures on the luncheon programs given by the Society, the George Washington University Medical Society, and the Georgetown University Medical Alumni Association. Very few state or even national medical meetings can boast of such speakers as Mr. Eric Johnston, President of the Motion Picture Association of America, Inc., Dr. Austin Smith, Editor of the *Journal of the American Medical Association*, and Major General Lewis B. Hershey, Director of Selective Service.

The dinner given by the Women's Medical Society, which has become an annual event, added considerably to the interest in the ASSEMBLY, attracting a good many women physicians from outside Washington. Dr. Priscilla White of Boston, the guest speaker at the dinner, gave a stimulating address on "New Insulin."

JEAN HERSHOLT ("Dr. Christian") addressing Society members, their wives and guests, at the Annual Dinner.

As anyone who has ever been connected with a large medical meeting knows, the dinner which closes proceedings of several days is not always successful. This year it was a well attended and happy event. This was largely due to the inspiration of Dr. Richard Todd, Chairman of the Committee on Social Affairs, whose idea it was to honor Jean Hersholt, nationally known to the radio audience as "Dr. Christian." Mr. Hersholt proved to be a gracious man as well as a fine artist, and worthy of the Certificate for Meritorious Service which he received for his characterization of the ideal family doctor. President William M. Ballinger, who presided, was an unusually capable toastmaster and deservedly received much credit for his part in a colorful and especially enjoyable occasion. All in all it was a genuinely satisfying evening.

Special mention will be made later in this column of the physicians who received Certificates for Meritorious Service.

All these features, excellent though they were, would have been of little moment if physicians and others invited to be present had not turned out in large numbers. It is a pleasure to report that the attendance was the largest in the ASSEMBLY's history. The following is an analysis of registration figures:

Physicians	1,625
Hospital Interns	97
Medical Students	525
Dentists	9
Nurses	430
X-Ray and Laboratory Technicians	98
Pharmacists	38
Office Nurses and Secretaries	55
Exhibitors	249
Miscellaneous (includes various professional groups not listed above)	534
TOTAL	3,660

Reference has already been made to individuals and organizations responsible for this year's ASSEMBLY. However, there were others who played a major part in its success, for the ASSEMBLY is in no sense a meeting for which a very few are responsible.

Dr. Karl C. Corley, General Chairman of the Committee on Arrangements, who so capably directed preliminary plans for the ASSEMBLY, was unfortunately not able to be present during the meeting. He was ordered to active duty with the Army's 382nd Evacuation Unit less than a month before the ASSEMBLY was scheduled to be held. Dr. Leonard T. Peterson, Vice Chairman of the Committee, thereupon became Acting Chairman. Other chairmen who have not previously been mentioned and who gave an excellent account of themselves were Dr. Joseph J. Wallace (Attendance), Dr. Helen Gladys Kain (Women Physicians), and Dr. R. Bretney Miller (Special Exhibit). To them, to members of their committees, and to members of the Woman's Auxiliary who did so much to make the Annual Dinner a success, the Society owes a debt of gratitude.

Well, that about sums up the story of the 1950 ASSEMBLY. If proper credit has not been given to all those who gave a helping hand, it is due to your Observer's faulty memory and is, of course, not intentional. Now the Society can look forward to another year. The 1951 ASSEMBLY has already been scheduled at the Hotel Statler for October 1, 2 and 3. In the next few months plans for this meeting will be getting under way.

The next Committee on Arrangements will have a big job on its hands to improve on the 1950 edition. You, dear reader, can help by letting them have the benefit of your suggestions. They will welcome new ideas, for they recognize that the ASSEMBLY cannot remain static. If this meeting is to continue to be successful it is necessary to avoid the proverbial rut.

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Three Washington Physicians Honored

For some years now our Medical Society has proceeded on the assumption that it is far better to honor the living than the dead. In the course of about ten years it has presented Certificates for Meritorious Service to the following members: Drs. Edward Y. Davidson, F. X. McGovern, Coursen B. Conklin, John B. Nichols, Arnold McNitt, Henry C. Macatee, Joseph S. Wall, Arthur C. Christie, William J. Mallory and Charles Stanley White.

This year for the first time a certificate was given to a layman, Actor Jean Hersholt (see above). Member recipients were Drs. Harry Hyland Kerr, Frederick Coleman Fishback and Arch Lockhart Riddick. The latter were honored for divergent reasons. In no instance were the awards made specifically for professional ability, although all of the recipients rank high in their

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Photos by Dr. Leslie H. French

SPEAKERS AT THE 21st ANNUAL SCIENTIFIC ASSEMBLY

This year's speakers at the Assembly included those shown above:

(1) Dr. E. M. K. Geiling, Chicago
(2) Dr. Thomas McPherson Brown, Chairman of the Program Committee for the Assembly
(3) Dr. Andrew A. Marchetti
(4) Dr. Priscilla White, Boston
(5) Dr. John J. Curry
(6) President William M. Ballinger
(7) Dr. Frank N. Allan, Boston
(8) 1st Vice President J. Bay Jacobs
(9) Dr. Robert Jackson, Iowa City
(10) Dr. Monroe J. Romansky
(11) Eric Johnston, President of the Motion Picture Association of America, Inc.

chosen field, surgery. Rather, they were recognized for their broader interests, i.e., preventive medicine, medical research, and medical economics. But let the certificates and the brief biographical sketches which follow speak for themselves.

Dr. Kerr was presented the certificate "for his outstanding service to the medical profession and the people of the District of Columbia. His progressive spirit, versatility of interests, and abilities as a surgeon and a medical educator are widely recognized. During a large part of his career he has devoted himself to the enlightenment of the laity in regard to cancer. Under his leadership the first Cancer Detection Clinic in Washington was established. Generations of Washingtonians still unborn will be indebted to this able and public-spirited physician."

Dr. Kerr is a native of Canada, having been born in Winnipeg on April 30, 1881. He is the son of an eminent physician, the late Dr. James Kerr, who was a close friend of the late Sir William Osler. He attended Washington's Central High School and Columbian University, now George Washington University, where he received his undergraduate training. A Doctor of Medicine degree was conferred upon him at McGill University in 1904. An internship at Montreal General Hospital followed. Later he did postgraduate work in England and on the Continent.

Recently Dr. Kerr completed 41 years as a member of the faculty of George Washington University School of Medicine. He was Clinical Professor of Surgery at the institution from 1930-1946.

He entered the Army Medical Corps in World War I as a First Lieutenant and was discharged in 1919 as a Lieutenant Colonel.

Dr. Kerr is a Past President of the Medical Society of the District of Columbia, having served in that capacity in 1929.

Much more could be written about Dr. Kerr for he is one of the best known physicians in the Nation's Capital.

Dr. Fishback was presented his certificate "for his outstanding service to the medical profession and the people of the District of Columbia. For more than a decade he has devoted his energies unstintingly to the advancement of medical research. Largely due to his courage, foresight and vigilance, legislation detrimental to the legitimate pursuit of scientific investigation has been successfully opposed. Members of his profession and the citizens of the Nation are deeply indebted to this conscientious, able physician."

Dr. Fishback, a native of Washington, was born on October 7, 1898. His early education was received in the public schools of the District of Columbia. Like Dr. Kerr, he is an alumnus of Central High School. He did undergraduate work at Harvard, where he was given an A.B. degree in 1919. Immediately thereafter he enrolled in the Harvard Medical School, from which he received a Doctor of Medicine degree in 1922. The University of Minnesota bestowed upon him a Master of Science degree in surgery in 1928.

Dr. Fishback interned at St. Francis Hospital, Jersey City, from May, 1922 to February, 1923; Peter Bent Brigham, Boston, from 1923 to 1924; Woman's Hospital, New York City, from 1924 to 1925; and New York Lying-In Hospital, 1925. He was a Fellow in Surgery at the Mayo Foundation from 1925 to 1928.

He, like Dr. Kerr, has served many years on the faculty of a Washington medical school. He has been a member of the Georgetown University School of Medicine faculty since 1929 and is at present Associate Professor of Surgery.

There have been few physicians more loyal to their profession and who have given more time to its interests than Dr. Fishback, and there is no one in Washington, or for that matter in the country, more familiar with legislation which would hamper medical research.

Dr. Riddick was presented the certificate "for his outstanding service to the medical profession and the people of the District of Columbia. Tireless in his efforts to stimulate the interest of his fellow physicians in prepaid medical care for the low income group, he was largely responsible for the Medical Society's first effort in prepayment medicine. His personal sacrifice, foresight and courage laid the foundation for the development of the Society's surgical-obstetrical plan, Medical Service of the District of Columbia. An able physician, he has a keen sense of social responsibility."

Following the presentation of Certificates for Meritorious Service at the Annual Dinner, October 4, PRESIDENT WILLIAM M. BALLINGER (extreme right) exchanged pleasantries with the recipients, who were (left to right): DR. ARCH L. RIDDICK, DR. HARRY H. KERR, JEAN HERSHOLT, AND DR. FREDERICK C. FISHBACK.

Dr. Riddick was born in Hertford, North Carolina, on November 1, 1894. He received his early education in Belvidere Academy, Belvidere, North Carolina. He acquired a Bachelor of Science degree at Guilford College in 1916 and graduated from the Johns Hopkins Medical School in 1921. He interned at the Church Home and Infirmary, Baltimore, from 1921 to 1922 and was a Resident at Emergency Hospital, Washington, from 1922 to 1924.

At the present time Dr. Riddick is Clinical Professor of Surgery at George Washington University School of Medicine; Chief of the Surgical Staff at Suburban Hospital, Bethesda, Maryland; Associate in Surgery, George Washington University Hospital; and Attending Staff Surgeon at Emergency Hospital.

Dr. Riddick is a pleasant but serious man who has long taken an interest in the social and economic problems of medicine. Late in the 1930's he vigorously urged the adoption of a prepayment plan by the Medical Society, which the committee of which he was chairman had developed. His objective was realized when the first plan sponsored by the Society, Mutual Health Service, came into existence in April, 1939. A year later, due to a lack of public interest, it suspended operation.

Dr. Riddick was not dismayed but continued his interest in prepaid medical care. As a result of the groundwork which he and a small group of associates laid, the present medical service plan came into being.

Dr. Riddick, like those who were honored with him, is highly regarded by his fellow physicians, who recognize in him the highest type of physician.

There are, of course, many others who are deserving of recognition. The Society's Executive Board, which makes the selection, welcomes the suggestions made to it from time to time by members. All a member has to do is to communicate with the Chairman of the Executive Board, who, this year, is Dr. William P. Herbst, Jr. He will submit the names proposed to the Board for its consideration. The choice is usually made late in the summer. The next selection will therefore be made sometime in August or early September of 1951.

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Medical Education for Atomic Defense

In mid-October when these lines were written the civil defense program in the District of Columbia was still in the embryonic stage. However, steps had been taken by District officials which gave promise for the future. Brigadier General Gordon R. Young, Engineer Commissioner, had called a meeting on October 6 of representatives of medical and other organizations having a direct interest in an emergency medical service program. It was agreed at that time that the District Medical Society and the Medico-Chirurgical Society of Washington should nominate a physician to administer the medical program.

The Deputy Director of Civil Defense in charge of the Medical and Health Division, it was decided, should be the District Health Officer, Dr. Daniel L. Seckinger. Under him there would be two Assistant Directors, one in charge of Medical Care Services, the other responsible for the Public Health Services.

Selection of the heads of sections, i.e., Casualty Stations, Hospital and Personnel and Other Resources, should be deferred until an Assistant Director in charge of Medical Care Services had been chosen. It was also tentatively agreed that there should be an over-all advisory committee to the Deputy Director.

A special committee was appointed by General Young consisting of Dr. William D. Claudy, Colonel William L. Wilson, and Colonel Robert E. Bitner. The Committee was asked to provide the District Commissioners with an estimate of the equipment and supplies which would be needed immediately.

About a week prior to this meeting the final session of the course on Medical Education for Atomic Defense had been held. This course, the first of its kind, had been planned for physicians and those engaged in allied professions. The enrollment far exceeded your Observer's expectations. Dr. William D. Claudy, Chairman of the Society's Committee on Medical Education for Atomic Defense, and an indefatigable and efficient worker, was much more sanguine and apparently with good reason.

Every nook and cranny of the large auditorium of the Department of the Interior was filled for the three evening sessions, which were the duplicates of those held in the morning. Even at the early morning meetings few seats were available. Here are the attendance figures:

Attendance Record

	Sept. 22	Sept. 26	Sept. 29	Total
Physicians	415	374	352	1,141
Dentists	115	112	109	336
Nurses	622	622	581	1,825
Veterinarians	28	28	26	82
Pharmacists	26	18	18	62
Miscellaneous professional groups	241	297	268	806
TOTAL	1,447	1,451	1,354	4,252

Medical groups contemplating a similar course and physicians who did not participate may find the following synopsis interesting and informative:

On the first day, September 22, Dr. William D. Claudy was the moderator for the morning session. Dr. Roy Lyman Sexton took over in that capacity in the evening. The speakers and their subjects were:

Introductory Remarks—Dr. William M. Ballinger, President of the Medical Society of the District of Columbia

"Enumeration of Problems and Medical Physics," Brigadier General James P. Cooney, Military Applications Division, Atomic Energy Commission

"Fire Department Problems—Their Relation to the Medical Effort," Battalion Chief Clarence Quick, District of Columbia Fire Department

"Police and Traffic Problems—Their Relation to the Medical Effort," Inspector John Fondahl, District of Columbia Police Department; Director of Civilian Defense

"Atomic Weapons Effects," Herbert Scoville, Jr., Ph.D., Armed Forces Special Weapons Project

Film: "The Medical Effects of the Atomic Bomb"—Part I

At the second morning session, September 26, Theodore Wiprud shared the responsibility of moderator with Dr. G. Foard McGinnes, Vice President in charge of Health Service, D. C. Chapter, American Red Cross. The program for both sessions follows:

"Medical Effects of Atomic Weapons," Brigadier General James P. Cooney

"Biological Effects of Ionizing Radiation," Lawrence Tuttle, Ph.D., Division of Biology and Medicine, Atomic Energy Commission

"Pathology of Ionizing Radiation and Types of Injuries," Colonel Elbert DeCoursey, Director, Armed Forces Institute of Pathology

Film: "The Medical Effects of the Atomic Bomb"—Part II

The concluding session was held on September 29. Colonel William L. Wilson, Special Assistant to the Surgeon General of the Army, was moderator at both the morning and evening sessions. The final discussions and discussors were as follows:

"Diagnosis of Radiation Injury," Commander Eugene P. Cronkite, Naval Medical Research Institute

"Therapy of Atomic Weapons Casualties," Major Gerald M. McDonnel, Armed Forces Special Weapons Project

"Special Problems of Blood, Blood Substitutes and Plasma," Dr. John B. Ross, Medical Society of the District of Columbia

"Administrative Problems of Civil Defense," Brigadier General Gordon R. Young, Engineer Commissioner of the District of Columbia; Colonel John P. Hayes, Assistant Engineer Commissioner

"Health Department Problems," Dr. Daniel L. Seckinger, Director of Public Health of the District of Columbia; Dr. Frederick H. Goldman, Department of Public Health

Film: "The Medical Effects of the Atomic Bomb"—Part III

Here a special word should be said about Colonel Wilson, whose enthusiasm and know-how were of invaluable assistance to Dr. Claudy and the committee of which he is the chairman. There are few physicians in or out of the armed forces who know more about the medical aspects of civil defense than Colonel Wilson and fewer still with his unquenchable enthusiasm. This is slight acknowledgment for the endless hours Colonel Wilson has cheerfully devoted to the District Medical Society's efforts in civil defense. But he can be assured that the Society and its officers are very appreciative of his assistance. The Society is also indebted to Major General Raymond W. Bliss, Surgeon General of the Army, who made available the services of other members of his staff, notably Major Gerald M. McDonnel.

At the closing session of the course Colonel Wilson summed up the results in this manner:

> "This course has demonstrated far better than words can do, that civilian, medical and health personnel can and will be depended upon in an emergency.
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> "We hope this last hour will crystallize your thoughts on what happens in atomic attacks, what produces the dangers of atomic attacks, and then what we may do about them.
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> "You have had the privilege of hearing the most authoritative and informed discussion on this subject by experts ever presented to a civilain group. These experts, military and civilian, national and local, administrators and technologists, have given you basic information upon which you can depend. Now you must carry on. You should be an example for other communities of the Nation who are not privileged to hear these authorities."

Several telephone calls have been received from participants in the course inquiring about their certificates. It had been stated in advance of the first session that an attendance record would be kept and each participant entitled to it would be issued a certificate stating that he had participated. An effort is being made to make available the certificates before this item appears. However, there is considerable work to checking the attendance slips and to typing the certificates.

All in all your Medical Society officers are satisfied that its Committee on Medical Education for Atomic Defense has made a genuine contribution to the welfare of the people of Washington. Special commendation, as has been suggested, is due Dr. Claudy. Unfortunately, Dr. A. Clagett Gray, Chairman of the Committee on Emergency Medical Service, was ill and could not take part in the course. He was nevertheless much interested and was kept informed on all matters pertaining to it.

The Loyal Opposition

One often hears the expression, "Most people have to learn the hard way." Your Observer would be the last to deny the validity of this observation. As a matter of fact, his experience has taught him that, like individuals, medical organizations and their members frequently pay dearly for knowledge gained.

There was a time within your Observer's memory when a doctor would hesitate to take issue with medical leaders whether on a national or local level where general policies of the organizations were concerned. It just wasn't done except by irresponsible individuals. To do so was to invite criticism or at the least be considered somewhat peculiar.

Fortunately this situation no longer exists to the degree it once did, largely because experience has shown that it is an unhealthy state of affairs. Few physicians now hesitate to speak their minds in medical societies on important issues. Some even seek public forums. So long as they exercise good taste and judgment, it matters little to their respective reputations whether they agree with their organization's policies or not. But to win support their position must be sound and have wide appeal.

So medical societies—and their parent organization, the AMA, for that matter—have learned the hard way that complete unanimity of opinion on such controversial issues as the economic aspects of medical care is not possible nor desirable. In fact it can only eventually result in an upheaval or at the very least in the disaffection of many valuable members.

These reflections were prompted by two excellent articles published in *Medical Economics* for July and September, 1950 on "the loyal opposition." Incidentally, *Medical Economics* has come a long way in the past fifteen or twenty years. Once, in the opinion of AMA officials, it was a throw-away publication of little value despite the fact that it was widely read by physicians. Today it is accepted by the AMA, whose officials have on several occasions used it as a medium through which to convey their opinions to the profession. This belated recognition of the excellent work done by the editorial staff of this publication is well deserved.

But, let us go on with our discussion of "the loyal opposition." Not all members have agreed with the AMA in regard to the manner in which the so-called Educational Campaign should be conducted. Nearly all concur in its objectives; that is, they are opposed to a Government system of medical care. But there are sharp differences in regard to the method of presenting the views of organized medicine. Personally, your Observer has not been too impressed by some of the literature and statements which have been issued. However, he may be wrong. The important thing is that members are saying what they think about this program without being called to account by the AMA or their medical societies.

More frank discussion should be encouraged. If ever there was a time when doctors should think and express themselves, it is now. A new society is in the making whether they like it or not. If doctors do not help to shape their future, it will be done for them.

Organized medicine is no longer the complacent, self-satisfied body it once was. Its members speak more freely than ever before. Having made real progress in this respect it should be prepared for the next step, courageous evaluation of the impact which the changes in medical practice now in progress will have on physicians. This is vitally important to both doctors and their patients.

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Desperate Oscar

A reader for whom your Observer has considerable respect recently expressed the opinion that references to prominent public figures who delight in lambasting the medical profession might well be omitted from this column. Why publicize the opinions of those who are unfriendly? He mentioned specifically Federal Security Administrator Oscar R. Ewing.

Your Observer cannot go along with this point of view. While he disagrees with Mr. Ewing, he recognizes the importance of his position in the present Administration. Having said this, he must confess his disappointment in Mr. Ewing as a conscientious public servant. His performances have often been sad, especially when the medical profession is under discussion. A prime example was his speech before the convention of the American Federation of Labor at Houston last September. Here was a soap-box performance deluxe. Seldom has a public figure descended to the level which Mr. Ewing did in a tirade against the medical profession.

"Neither Korea, nor the Kremlin, nor the National Association of Manufacturers, nor the American Medical Association, nor anyone else," he declaimed, "is going to stop the people of this country in their efforts to maintain their liberty and promote their security and happiness."

Now your Observer is not a spokesman for the AMA, nor has he always agreed with its policies or methods, but the parallel drawn here is not only unfair but ridiculous.

But listen to this: "We cannot afford to surrender now to apostles of reaction who have formed an unholy alliance to destroy the very principles of American humanity and national security. Today we are confronted by such an alliance, spearheaded by one profession, but joined in by every misanthropic force in America—and by a large number of well-meaning people who are allowing themselves to be roped into something they cannot really believe in."

Note the reference to "one profession." Mr. Ewing is speaking not against one organization but against a whole profession.

He then proceeds to lambaste the AMA for its Educational Campaign. "Since the AMA alone is putting up, in one single gesture, so large a sum as $1,110,000, we could perhaps assume that its aim is to improve the quality of medical care in America. What, for instance, would this money buy in the interest of better health?" He then lists a number of expenditures which the AMA might make, among them a brand-new general hospital, completely equipped health centers and a research program.

That's an argument, but in your Observer's book, a rather feeble one. The AMA believes that the people of this country will receive far superior medical care under a voluntary than under a Government system. It feels so deeply on this score that it is using every resource at its command to prevent the Administration's insurance scheme from being realized. There is nothing wrong about that, nor is there any justification for censure because the Association uses its funds for this purpose. This is still a free country where one can say what one thinks. The AMA is speaking its piece, which it has a right to do.

One final quotation from Mr. Ewing's demagogic appeal: "Let him [the American] see for himself what the American Medical Association—at a time when we are committed by blood in Korea and by determination throughout the world to fight for human freedom—let him see what the AMA thinks is truly important." That's just what the AMA hopes to accomplish and the people will render their verdict.

Mr. Ewing might be reminded of one fact—that is, that American medicine and, yes, the AMA itself, has never fallen short in any crisis in which this country has been involved and it will place its record alongside that of any group in this land. If Mr. Ewing had deliberately tried to alienate the medical profession he could not have done a more effective job. Not only the so-called AMA hierarchy but the rank-and-file of the profession will deeply resent his statements.

T. W.

THE CARE OF HAND INJURIES*

VII. Traumatic Amputations

The loss of part of the hand by injury may result from cutting, tearing or crushing wounds. Such injuries almost invariably produce one or more open fractures. There are often associated injuries of the remaining parts of the hand. Such injuries require appropriate treatment, as outlined in previous articles.

The purposes of early treatment of traumatic amputations are:

1. To relieve pain, control hemorrhage and combat shock.
2. To conserve all viable tissue possible.
3. To prevent or control infection.
4. To secure the maximum restoration of damaged structures.
5. To secure healing at the earliest possible time.
6. To restore the injured hand to maximum usefulness.

These objectives are sought by:

A. First-aid treatment

1. All tissues not actually severed from the hand should be retained. Without attempt at cleansing or the application of any antiseptic, a voluminous sterile dressing is applied and bandaged with firm, even pressure. The hand is immobilized by splinting in the position of function and kept elevated.
2. The pressure dressing will usually suffice to control the loss of blood. If it does not and free hemorrhage persists, the use of a tourniquet, properly applied, may be necessary. This should not be left in place more than 45 minutes.
3. Appropriate measures should be taken to control pain and combat shock.

Proper conditions for definitive treatment should be sought at the earliest possible time (see Article II).

B. Definitive treatment

Under operating-room conditions and following X-ray examination of the hand with first-aid dressing in place, the following measures of definitive treatment are appropriate:

1. Cleansing of the injured area and evaluation of the injury under pneumatic tourniquet hemostasis if necessary (see Article IV, Lacerated Wounds).
2. Arrest of hemorrhage by ligation of injured vessels.
3. Thorough but gentle removal of foreign substance and excision of devitalized tissue, sparing all that may live (see Articles IV, Lacerated Wounds, and VI, Open Fractures).
4. Repair, as far as practicable, of damaged structures and reduction of fractures and dislocations. This repair should aim particularly at the protective covering of bones, tendons and nerves. Maximum skin coverage should be provided at once by
   a. Utilization of local skin,
   b. Free split-thickness grafts, or
   c. Employment of an abdominal or thoracic pedicle graft.

   Where skin loss is extensive, or in stripping or denuding amputations of digits (especially the thumb), leaving bone exposed, the application of a pedicled skin graft is desirable.

   Local skin should not be employed if the preparation of flaps requires further amputation or sacrifice of living bone. Thus, the stump of an amputated digit should be left at full length and be covered by appropriate graft, either immediate or delayed. Sacrifice of finger length by formal re-amputation is to be condemned.

   Partially amputated parts of digits should be retained and lightly sutured in place with skin stitches only. Many will survive and may subsequently be restored to usefulness.
5. Retention of reduced incidental fractures or dislocations by appropriate splinting or fixation (see Articles V, Fractures and Dislocations, and VI, Open Fractures).

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* This is the seventh and last of a series of articles on the Care of Hand Injuries. This material is prepared by the American Society for Surgery of the Hand and is distributed by the Committee on Trauma, American College of Surgeons, through its Regional Committees.

Preceding articles have been published in the following issues of the Medical Annals:

I. Protection of the Hand, July 1948; abstracted in March 1950
II. Requirements of Early Definitive Treatment, November 1948; abstracted in March 1950
III. Surface Injuries, June 1949
IV. Lacerated Wounds, October 1949
V. Fractures and Dislocations, March 1950
VI. Open Fractures, August 1950

6. Application of firm pressure-dressing, the hand (except when fixed to the body for grafting) being splinted in the position of function.
7. Administration of tetanus toxoid or antitoxin and antibiotic drugs.

C. Subsequent care

1. Dressings

   Unless evidences of infection develop, the dressing should be left in place for a sufficient time to permit healing of initially closed wounds or the firm taking of grafts (7 to 10 days). Coincidental fractures require additional periods of immobilization to assure union (see Articles V, Fractures and Dislocations, and VI, Open Fractures).
2. Surface healing

   If skin coverage has not been completed at the time of initial definitive treatment, or if grafting has failed, preparations should be made to place or replace skin grafts at the first postoperative dressing. Denuded areas should be given skin coverage at the earliest possible time.
3. Restoration of form and function

   When healing is complete a program should be developed and prosecuted for
   a. Restoration of function by exercise and occupational retraining.
   b. Reconstructive surgery to render the hand remnant as useful as possible, or
   c. Preparing the stump for prosthesis.

THE WASHINGTON OFFICE OF THE AMA

For the last six years the American Medical Association has maintained a permanent Washington office which keeps Congress informed of the attitudes and policies of the Association and the Association informed of legislative and administrative developments in the field of health.

Because of rapidly increasing interest in medical matters, both on the part of Congress and the Federal bureaus, the office has steadily expanded its staff and its quarters. Originally one man and a stenographer made up the staff. Now 17 people contribute to the operations of the office, including part-time help.

An indication of the scope of the work is the fact that more than 400 pieces of legislation of direct or implied medical interest were introduced in the last Congress. All of these were followed through their course on Capitol Hill. Incidentally, in the last session several bills approved by AMA became law, but not a single bill opposed by the Association was enacted.

Last March 1, the office was moved from crowded space at 1302 18th Street, N.W. to its present headquarters at 1523 L Street, N.W., directly across from the Statler Hotel and adjoining the new *Washington Post* building. The office occupies the entire third floor of the remodeled building, and includes a directors' room for use of the AMA Board of Trustees or other groups which on occasion find it convenient to meet in Washington.

A few District physicians, mostly those who have a particular interest in legislation or are invited to testify before Congressional committees, are familiar with the AMA's Washington Office and the service it performs for the Association.

Because the office performs an unusual function, it reports directly to the Board of Trustees, rather than to one of the AMA Councils, whose headquarters are in Chicago. In charge of the office since its founding has been Dr. Joseph S. Lawrence, who had 20 years' experience as Executive Officer of the New York State Society before coming to Washington in 1944. Dr. Lawrence has many close contacts among both Republicans and Democrats on Capitol Hill. Although other staff members are assigned to follow activities of House and Senate, Dr. Lawrence also spends much of his time on legislation.

Responsible for reporting on the House is the office's Deputy Director, Dr. Frank E. Wilson. Dr. Wilson was National Medical Director of the American Red Cross before coming to the AMA.

Assigned to the Senate is Dr. Cyrus H. Maxwell, who came from the U. S. Office of Education. Legal counsel is Mr. James Foristel, who is experienced in legislative matters. Mr. George E. Connery, a Washington correspondent with both newspaper and radio experience, is editor and writer.

Dr. Maxwell and Mr. Connery joined the staff when the Washington Office moved to its present location.

Mr. D. Michael Perry is business manager. He also shares with Mr. Connery responsibility for contacting Government departments and agencies.

The Washington Office is an operating and not a policy-making service. It is expected to carry out policies which have been decided upon by the Board of Trustees and the House of Delegates. In this it has a dual responsibility. On the one hand, Dr. Lawrence and his staff maintain contact with House and Senate members so these law-makers will know at all times how the AMA stands in regard to medical legislation. On the other, the staff is expected to know what is happening in Congress and Government departments and to pass on this information to the Association membership.

As part of its work the staff analyzes new bills for the consideration of the Legislative Committee of the Board of Trustees, and assists in briefing witnesses who are to appear before committees of the Senate and House as official representatives of AMA. It is also an information center on Association activities for Government departments and agencies, and keeps contact with the many national organizations in Washington that are active in the medical service fields.

To avoid all possibility of noncompliance with the complicated lobbying law, Drs. Lawrence, Wilson and Maxwell are registered as lobbyists. However, it is obvious the Washington Office is not a good example of a typical lobbying organization. Dr. Lawrence says that in his six years in Washington he has never asked a Representative or Senator to vote a certain way. Instead, the staff furnishes information on request to committees, occasionally sends an analysis or fact sheet on a certain bill to the House or Senate, and discusses legislation with Representatives and Senators when called upon. The information sent out in the Office's publications is factual rather than editorial, based on the theory that members of the profession can be depended upon to make up their own minds the right way once the facts are laid before them. The Association's educational campaigns are not handled through the Washington Office, but through Chicago headquarters, to which the public relations firm of Whitaker and Baxter reports.

As suggested, a large responsibility is the dissemination of information to the Association. At some times, particularly in connection with legislation, information is telephoned or telegraphed. Two weekly news publications, *Capitol Clinic* and the *Bulletin*, circulate news to a mailing list of several thousand. Included are state medical society presidents, secretaries and editors, and officers of the AMA. Also on the list are a number of Congressmen and Government officials concerned with medical problems. There is no charge for these publications, but because printing and mailing costs are high, an effort is made to restrict the list to persons to whom the information is particularly valuable.

In the *Bulletin*, new bills are analyzed, and the progress of legislation is reported. Bills are listed by their numbers for filing and easy reference purposes. *Capitol Clinic* is newsier in style and covers activities of the Government departments, including the military.

Mr. Connery, with the assistance of other members of the staff, also supplies "Washington News" for the *Journal of the American Medical Association*, thereby making developments in the Capital available to the full AMA membership. On this news the time lag between reporting and publishing has been reduced to a minimum.

While Congress is in session, members of AMA's Washington staff are required to stay close to the job to maintain contacts and supply day-to-day information. At the end of a session, it has been the practice for the last two years for staff members to make trips around the country to familiarize state medical society leaders with the national legislative situation.

While this office is not equipped to do any large volume of research for individuals, Dr. Lawrence said he is anxious to provide as much help as possible for Washington physicians who are attempting to follow the progress of medical legislation or the activities of the Government bureaus. He said he and his staff will willingly undertake to answer questions.

CAT.

Our Living Past Presidents

PRENTISS WILLSON, M.D., President, 1933–34

Prentiss Willson was the 67th President of the Medical Society of the District of Columbia. His election to the office was won by merit. His had been no career of medical politics; it had been a career in which, from medical school to the highest distinction attainable in his own locale, there had been in staccato sequence such contributions to the practice and literature of medicine, and such contributions to the Society itself, that his selection and election were in the natural order.

No preparation for filling the office of president could excel his: he was elected a member of the Executive Committee in 1925, and except for one year, 1928, he served continuously on that committee until elevated to the presidency in 1933, remaining as chairman through his post-presidential year, 1934.

As a result of this long service, he became one of the defendants in the prosecution of the Medical Society and the AMA by the Department of Justice for alleged restraint of trade, the charge growing out of the controversies relating to the organization of Group Health Association, Inc.

It was also during these years that he gave much of his time, energy and sound judgment to the Society's Committee on Medical Economics. This activity entitles him to abiding recognition as one of the pioneers whose work and wisdom have fruited in such contributions to the social order as Hospital Service Agency, Group Hospitalization, Inc., and our own prepaid surgical-obstetrical plan, Medical Service of the District of Columbia.

Dr. Willson made his initial mark in the Medical Society before he was a member, indeed, before he was a licensed practitioner. The late Dr. Samuel S. Adams in 1906 reported to the Society the first case of early recognition of perforation of a typhoid ulcer with successful surgical treatment. In presenting this case report, Dr. Adams gave full credit for the diagnosis to the vigilance and acumen of a brilliant young intern named Dr. Prentiss Willson. This incident will be found recorded in the proceedings of the Society for that year; for the present writer, as Secretary, took it down and, in his own mind, marked Prentiss Willson as the "White Knight" to be watched in the years to come. During a recent exchange of reminiscences, Dr. Willson related another case, in which he had been sent out from Georgetown Hospital to see a man living down by the canal, and recognized his first and last case of glanders.

These two incidents, combined with all his later achievements, should serve to encourage the young man whose medical training may seem to be limited in scope. Prentiss Willson went direct from the old Central High School to Georgetown Medical School, then located on H Street near 10th, N.W. His first year, he says, was "successful but not brilliant." His father, to remove him from the distractions and diversions of the home town, then sent him to the College of Physicians and Surgeons of Columbia University, N. Y., where he repeated the first year of the medical course and completed the second year successfully. Owing to the death of his father, he was obliged to return to Georgetown University and was graduated in medicine in 1905. He served one year as intern at the Georgetown University Hospital and from his internship he went directly into the general practice of medicine. But did he lament the absence of pregraduate and post-graduate embellishments of education? Not he; his university was his own mind and the world was its walls.

A man of unassuming modesty, he trusted himself and did not hesitate to take his place among his older fellows, trusting them as also learning though learned. His bibliography exemplifies this. No sooner was he in the Medical Society than his contributions began. His boyhood interest in natural history and zoölogy had led to research and knowledge; esoteric to the general run of doctors, he contributed what he had learned: "Snake Poisoning in the United States. A Study Based on Analysis of 740 Cases."[1] Then followed three other papers on Snake Bite in 1908, 1909 and 1910, two of which appeared in our own Annals.[2]

Dr. Willson's primary interest had always been obstetrics and his early practice, though general, tended toward that specialty. With the garnering of experience came his communication of it. Never premature, what had become his own he gave. In 1910, one of his papers was published in *Surgery, Gynecology and Obstetrics* and in the *Washington Medical Annals*.[3] Others soon followed: 1913, "Caesarean Section for Threatened Eclampsia, etc."[4]; 1914, "Hysteria Simulating Eclampsia,"[5] and the same year, "Case of Breech Presentation at 8½ Months, Complicated by Fibroids; Confirmed by Radiographs."[6] The date suggests Dr. Willson's early recognition and employment of a relatively new diagnostic aid. Other important papers in the field of obstetrics followed in 1915; one on "Rectal Examinations during Labor"[7] served to popularize this method in Washington, Dr. Willson being the first to use it here.

A paper entitled "Chorea Gravidarum. A Statistical Study of 951 Collected Cases from the Literature and 105 Previously Unreported"[8] was published in 1932 and is regarded as the definitive source material on this subject. This paper and the one on Snake Poisoning in the United States, previously mentioned, were both published in the *Archives of Internal Medicine* and were commented on editorially in the *Journal of the A.M.A.* When the paper on Chorea Gravidarum was read before the Medical Society, Dr. Whitridge Williams came over from Johns Hopkins to open the discussion.

Space limits mention of other important publications, but Dr. Willson's Presidential Address, entitled "Medievalism in Modern Medicine,"[9] sets forth some of his philosophy in medicine, but possibly records unconsciously, and for our admiration, the author's courage. For over twenty-five years he had taught obstetrics, for three years as full professor, at Georgetown Medical School. During those years he had been burdened with the care of thousands of expectant mothers and their unborn babes. He had hundreds of times faced the responsibility of averting or witnessing death to both mothers and babes at the end of pregnancies

(*Continued on page 662*)

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[1] Arch. Int. Med., 1908, **1**, 516.

[2] Wash. M. Ann., 1908–09, **7**, 265; 1909–10, **8**, 409.

[3] Surg., Gynec. & Obst., 1911, **12**, 20; Wash. M. Ann., 1910–11, **9**, 436

[4] Am. J. Obst., 1913, **68**, 351.

[5] Wash. M. Ann., 1914, **13**, 139.

[6] Ibid., 1914, **13**, 162.

[7] Ibid., 1915, **14**, 318.

[8] Arch. Int. Med., 1932, **49**, 471 and 671.

[9] M. Ann. District of Columbia, 1934, **3**, 139 and 174.

"THE FIRST TEN YEARS ARE THE HARDEST"

LAWRENCE A. ZUPAN

Manager, Medical Bureau

The Medical Bureau will be ten years old on the second of December.

In March 1940, the Executive Board established the Medical Bureau Committee to supervise the organization of the telephone-secretarial exchange to be known as the Medical Bureau. The original purpose of the Bureau was to aid physicians in the handling of their calls and to make certain information about physicians and medical facilities available to the public. In its ten years of operation there can be little doubt that the Bureau has fulfilled these purposes.

Efforts were made by the first Medical Bureau Committee, under the chairmanship of Dr. Joseph Horgan, to establish the Bureau before the close of the 1939–40 organization year; however, due to the limited time in which to issue contracts for the Bureau's service and to obtain listings for the April 1940 telephone directory, this project was held over until the fall of 1940.

On December 2, 1940, the date on which the Bureau began operation, there were 115 subscribers, 15 to the Telephone Secretarial Service and 95 to the Alternate Listing Service, with tie-lines from the switchboard to Doctors, Garfield, Providence and Sibley Hospitals and the Health Security Administration. As of October 15, 1950, at the time of this writing, there are 720 subscribers to the Bureau, 337 to the Telephone Secretarial Service and 383 to the Alternate Listing Service, and tie-lines to Doctors, Emergency, Garfield, Providence, Children's, and Sibley Hospitals, the Hospital Service Agency, the Emergency Ambulance Service, and Group Hospitalization, Inc.

The Bureau was first quartered on the first floor of 1718 M Street, N. W. in a space now occupied by the ladies' lounge. It has expanded from a single-position switchboard with a staff of 3 operators to a four-position switchboard employing 7 full-time operators, 7 relief operators, an office supervisor, an information clerk, and its manager, Mr. Lawrence A. Zupan. After the renovation of 1710 M Street, N.W., in 1947, the Medical Bureau was moved to its own spacious quarters on the first floor of the building and now consists of an equipment room, an office, and an operators' lounge.

The Bureau is under the direction of the Medical Bureau Committee, consisting of Bureau subscribers, but the Society's Executive Director, Mr. Theodore Wiprud, is directly responsible for its operation. Having had several years' experience with a similar physicians' exchange before coming to Washington, the Secretary arranged for the installation of special telephone equipment, developed the necessary records still used by the Bureau, employed and trained operators, and compiled an operator's handbook containing rules for the guidance of operators. The many complex problems which arose during the early life of the Bureau and during the past ten years of its operation were solved by the Secretary with the approval of the Medical Bureau Committee.

Medical Bureau switchboard in 1940, which was then handled by a single operator. Mrs. Elizabeth M Lenderman, now Chief Operator, was the first employee of the Bureau.

Records on file show that during its first month of operation in December 1940, a total of 1,321 recorded messages were handled by the Bureau as compared with 30,000 average recorded calls per month for the year 1950. On an average, the Bureau receives from 350 to 450 calls a day for doctors. On Sunday, March 5, 1950, because of the prevalence of respiratory diseases, the Bureau handled 729 calls for doctors—the greatest number for a single day in the history of the Bureau.

The following summary shows the growth of the Bureau from December 1940 to October 15, 1950:

Date	Total Subscribers	Secretarial Service	Alternate Listing Service
December 2, 1940	115	20	95
May 1941	152	30	122
May 1942	182	47	129
May 1943	226	68	152
May 1944	275	114	161
May 1945	309	135	174
May 1946	400	159	241
May 1947	540	178	362
May 1948	568	203	365
May 1949	621	266	355
May 1950	681	306	375
October 1950	720	337	383

The switchboard at the BUREAU in 1950. Physician-subscribers have increased from 115 to 720, and telephone operators from 3 full-time to 18 full- and part-time.

The Bureau played a vital role during World War II and rendered a great public service by locating subscribers, making referrals, and dispatching physicians in emergency cases, and serving as a reliable medical information center. At the termination of the War, the Medical Bureau Committee extended to all members of the Society who served in the armed forces six months' Alternate Listing Service without charge. Many physician-veterans were aided materially in reëstablishing or establishing their practices through the Bureau's referral system and emergency call program.

The success of the Bureau has been due to the guidance of the Medical Bureau Committee; its loyal past chairman, Dr. Joseph Horgan; its very able present chairman, Dr. Harry Zehner; and the Executive Director, Theodore Wiprud. Some members of the Committee and Mr. Wiprud have served on the Medical Bureau Committee since its inception and have witnessed the growth of the Bureau from its prenatal stage to its present maturity and position in the Washington Metropolitan Area. The excellent work of the operators of the Medical Bureau also deserves much credit for its success. Mrs. Elizabeth M. Lenderman, Chief Operator, has been employed by the Bureau since it was established. For her ten years of loyal and efficient service, the Bureau staff is arranging a special luncheon in her honor. Mrs. Lenderman's courteous voice is known to many Society members. Miss Mary M. McCambridge, Office Supervisor, has been associated with the Bureau since March 1947 and has shown a genuine interest in the Bureau. Her duties include the management of the Bureau office and the over-all supervision of the switchboard.

Other members of the Bureau staff are: Mrs. Gwendolyn H. Lee, Day Supervisor, and Mrs. Janice M. Siggers, Information Clerk. Regular Operators: Mrs. Ethel M. Balik, Mrs. Dora F. Caylor, Mrs. Arlene L. LiCalzi, Mrs. Dorothy B. King and Mrs. Marjorie L. Wilkins. Relief Operators: Mrs. Madeline Fincannon, Mrs. Phyllis J. Iacone, Mrs. Doris Kamrad, Mrs. Mary Lou Kernan, Miss Mildred Langan, Mrs. Margaret Massingill and Mrs. Helen Workman.

With the first ten difficult years of the Bureau's development now a matter of Society history, those associated with the Bureau will continue to make plans for its greater service to the public, the medical profession and to its subscribers.

MEETINGS

Wednesday, November 29

CLINICOPATHOLOGIC CONFERENCE

This Conference is being arranged by HAROLD H. JEGHERS, M.D., Professor of Medicine, Georgetown University School of Medicine. GEORGE T. HARRELL, M.D., Professor of Medicine, Bowman Gray School of Medicine, Winston-Salem, N. C., will be the guest discussor.

Wednesday, December 13

SYMPOSIUM ON WHAT DOES PSYCHIATRY OFFER YOUR PATIENT?

WINFRED OVERHOLSER, M.D.
Moderator

Psychotherapy—PAUL J. EWERHARDT, M.D., Washington
Psychoanalysis—T. DOUGLAS NOBLE, M.D., Washington
Shock Therapy—ISADORE RODIS, M.D., Associate Professor of Psychiatry, Georgetown University School of Medicine

Hospital Service Agency News

The many visitors to our exhibit booth at the recent Scientific Assembly of the D. C. Medical Society confirmed our impression that too many physicians are unfamiliar with HSA, its functions, purposes and procedures.

Inasmuch as the Medical Society was largely responsible for the inception of HSA, and our activities are of prime importance to the medical welfare of the community, we feel that every physician practicing within the Metropolitan Area should be familiar with the facilities of HSA, and its methods of arranging hospital care for the medically indigent.

Nearly 35 per cent of the present membership of the Medical Society is composed of physicians who have been members for three years or less. Most of those unfamiliar with HSA fall within this group, and we feel the number is large enough to warrant a brief restatement of HSA's functions and its close relationship to the medical profession.

What Hospital Service Agency Is and Does

HSA, formerly called Health Security Administration, acts as a clearing house for screening and routing indigent persons, or those with insufficient incomes (unless eligible for aid from tax funds) into the proper channels through which they may recieve hospital care. In this capacity it is an impartial representative, acting for the hospitals, the medical practitioners, and the contributing public through the use of Community Chest funds, together with the partial payments of those patients who are able to pay if given time.

Any physician may refer to HSA a patient unable to pay for hospitalization by simply using a prescription blank. The information needed by HSA is the diagnosis, the estimated length of hospital stay, and the recommended hospital if the physician has a preference. It should be understood that such a referral automatically releases the patient to staff care at the hospital or clinic to which he may be sent.

All applicants for clinic or hospital care are interviewed by a Medical Social Counselor to determine their eligibility for aid on the basis of their socioeconomic status. Such interviews may reveal applicants' eligibility for hospitalization at the expense of public (tax) funds of the community in which they are legal residents, in which event they are referred to the appropriate Board of Public Welfare or they may be found eligible to a special purpose fund, for example, polio, cancer, etc.

Interviews with applicants may place them in one of the three following categories:

FREE—HSA pays full contract hospital rate; patient pays nothing.

PART PAY—HSA pays full contract hospital rate; patient reimburses HSA on a partial basis over a period of time.

FULL PAY—HSA pays full contract hospital rate; patient reimburses HSA in installments from current income.

HSA's counselors frequently find that applicants have sufficient income or resources to pay for private medical care, in which event they are so referred. From January through August of this year over one thousand patients have been referred to physicians for private care.

HSA headquarters are at 1823 L Street, N. W., Washington 6, D. C., where patients are interviewed every day beginning at 9:00 a. m., Monday through Friday. In order to be seen the same day all applicants should be in the waiting room by 4:00 p.m. Only emergency cases are seen on Saturday from 9:00 a. m. to 1:00 p.m. There are two branch offices, one at 218 South Columbus Street, adjoining the Alexandria Hospital (Alexandria 8180), open every day, and the other in the Prince Georges Community Chest Building at 3723-34th Street, Mt. Rainier, Md. (Appleton 2737). The Prince Georges office is open on Tuesday and Thursday. The HSA switchboard (Metropolitan 3900) is connected by leased wires with the Medical Bureau switchboard of the District Medical Society.

Although more than half of its funds are provided by the Community Chest Federation (58.8 per cent in 1949), HSA is not a Chest agency. It was established in 1935 under a tripartite agreement between the Community Chest and certain hospitals to administer the Chest Hospitalization Fund, to eliminate duplication of diagnostic costs and clinic "shopping around," and to avoid exploitation of the medical profession.

HSA is a non-profit corporation with 84 corporate members representing hospitals, the medical and dental professions, and the public-at-large. The cor-

CALENDAR OF MEETINGS

September 18	Committee on Scientific Program
	Clinical Society, Diabetes Association of D. C.
September 19	Membership Luncheon
September 21	Committee on Special Exhibit, Annual Scientific Assembly
September 23	Washington Psychiatric Society
September 25	Executive Board
	D. C. Chapter, American Academy of General Practice
September 26	Board of Trustees, Medical Service
	Medical Officers' Reserve Units
September 28	Subcommittee on Blood and Blood Derivatives
October 3	Registered X-ray Technicians of Washington
October 4	Woman's Auxiliary
October 5	Executive Committee, Gallinger Hospital
October 7	Washington Society of Pathologists
October 9	Subcommittee on Mental Health
	Washington Orthopedic Club
October 10	Medical Officers' Reserve Units
	Women's Board, Providence Hospital
October 11	Woman's Auxiliary
October 12	Health Section, United Community Services

porate membership, which includes 33 physicians and five dentists, is composed of residents of the District of Columbia, Alexandria, Arlington and Fairfax Counties in Virginia, and Prince Georges and Montgomery Counties in Maryland. Thus the total Metropolitan Area is served by HSA, although the Montgomery County Chest administers its own Hospitalization Fund and maintains an office, similar in functions to HSA, in Rockville, Md.

In the 16 years of its operation, doctors and hospitals have provided, through HSA, 1,413,000 patient-days for 151,000 patients, and 2,750,000 clinic-visits for 660,000 patients. The success of this branch of Community Chest activity, while largely dependent upon community contributions, could not have been possible without the tremendous contribution made by the members of the medical and dental professions who give their services free to HSA-certified patients. It has been estimated that the physicians and dentists of the National Capital Area are donating services worth more than a million dollars a year.

INDEX OF TUMOR CHEMOTHERAPY

The National Cancer Institute announces the publication of a new report entitled "An Index of Tumor Chemotherapy." The 329-page monograph compiled by Dr. Helen M. Dyer, Biochemist, represents the most comprehensive survey made to date of the literature on the results of treatment of tumors by chemical methods. The work was undertaken in order to provide cancer research workers with a single source from which the available information on this subject could be obtained. The result is a compilation of data from the chief reports on tumor chemotherapy published in the American, English, French, Japanese, German, Italian, Portuguese, Scandinavian and Spanish scientific literature.

The four main sections of the report are: (1) an historical resumé and explanatory introduction; (2) table of 5,031 chemotherapeutic tests classified according to chemical used; (3) an alphabetical index of the chemicals, keyed so that they may be instantly located in the table of chemotherapeutic tests; and (4) a bibliography of the 2,213 references from which the data were taken. The table of chemotherapeutic tests contains, for each chemical, data on the type of tumor, species and number of animals used, the dosage, number of treatments, route of administration, effect claimed, year the test was reported, and the reference.

Since the number of copies is limited, distribution to individuals will be confined chiefly to persons engaged in cancer research work. However, in order that everyone to whom the report may be of service may have an opportunity to use it, copies have been sent to all medical school and other large scientific libraries in the United States and Canada, to many in foreign countries, and to several large city public libraries.

Requests for copies will be filled to the extent possible within the limitations imposed by the size of the edition and the relative needs of groups and individuals. Requests should be addressed to the Cancer Reports Section, National Cancer Institute, Bethesda 14, Maryland.

News and Personals

The Third Annual Medical Public Relations Conference will be held on December 3 and 4 in Cleveland, just prior to the Clinical Session of the AMA. How county society programs can help to increase community good will toward the medical profession will be one of the important topics discussed. Dr. Joseph S. Lawrence, Director of the Washington Office of the AMA, will speak at the "legislative" session. All activities will be held at the Hotel Statler.

The 36th Annual Meeting of the Radiological Society of North America will convene in Chicago, December 10–15. Headquarters for the meeting will be the Palmer House. The Carmen Lecture, established in 1935 in memory of Dr. Russell Carmen of the Mayo Clinic, will be delivered this year by Dr. Wendell G. Scott, of St. Louis, one of the Nation's leading radiologists. Dr. Scott will speak on "The Development of Cardiovascular Radiology."

The American Federation for Clinical Research will hold its Eastern Sectional Meeting at Walter Reed Army Hospital, December 9.

Three leading voluntary organizations in the field of mental health have announced their merger. They are the National Committee for Mental Hygiene, the National Mental Health Foundation, and the Psychiatric Foundation. The new organization will be called the **National Association for Mental Health, Inc.** Dr. George S. Stevenson, psychiatrist, of New York, is Medical Director of the new Association. He served as Medical Director of the National Committee for Mental Hygiene for many years and was last year's President of the American Psychiatric Association. Headquarters for the new Association are at 1790 Broadway, New York.

The American Dermatological Association is offering a prize of $300 for the best essay submitted of original work, not previously published, relative to some fundamental aspect of dermatology or syphilology. The purpose of this contest is to stimulate younger investigators to original work in these fields. Competition is open to scientists generally, not necessarily physicians.

Manuscripts should be typed in English, double spaced, and submitted in triplicate together with illustrations, charts and tables, not later than February 1, 1951, to Dr. Louis A. Brunsting, Secretary of the Association, 102–110 Second Avenue, Southwest, Rochester, Minn.

The prize-winning candidate may be invited to present his paper before the Annual Meeting of the ADA. The next annual meeting of the Association will be the Diamond Jubilee Observance of its founding and will be held, May 23–26, 1951, at The Homestead, Hot Springs, Virginia.

Further information regarding the essay contest may be obtained by writing to the Secretary of the Association.

The Institute of Industrial Health of the University of Cincinnati will accept applications for a limited number of fellowships which are being offered to candidates who wish to qualify for the practice of industrial medicine. The course of study leads to the degree, Doctor of Industrial Medicine.

Any registered physician, who is a graduate of a Class A medical school and who has completed satisfactorily two years of residency (including internship) in a hospital accredited by the AMA, may apply for a fellowship in the Institute of Industrial Health. The course of instruction consists of a two-year period of intense preliminary training in the basic phases of industrial medicine followed by one year of practical experience under adequate supervision in industry.

During the first two years, the stipends for fellowships vary from $2,100 to $3,000. In the third year the candidate will be compensated for his service by the industry in which he is completing his training.

Requests for additional information should be addressed to the Institute of Industrial Medicine, College of Medicine, Cincinnati 19, Ohio.

The National Heart Institute in its two years of operation has awarded 167 heart research fellowships to outstanding students in the medical and allied fields.

Candidates for the fellowships are screened quarterly by a Fellowship Board set up by the National Heart Institute. The term of fellowship is usually for one year. Funds to support the program are appropriated by Congress.

At present 89 fellowships are active, 19 are pending, and 59 have been terminated. Represented in the awards to date are 49 institutions in 20 states, the District of Columbia, Great Britain and Sweden. The institutions include universities, hospitals, and research foundations.

Three types of fellowships are awarded:

1. Predoctorate, to outstanding applicants holding Bachelor's or Master's degrees. Stipends vary from $1,200 to $2,000 per year.
2. Postdoctorate, to qualified individuals holding a Doctor's degree in medicine or related fields. Stipends, $3,000 to $3,600 per year.
3. Special research, for those with a Doctor's degree in medicine or a related field who have demonstrated unusual research ability or who possess specialized training for a specific problem. Stipends in this category are determined by the Surgeon General at the time of award.

The Army Medical Library is soliciting portraits for its **Art Section collection,** which contains more than 10,000 photographs and prints of medical men of the past 400 years, by securing portraits of contemporaries who have made significant contributions to the medical sciences. The Art Section is operating as a part of the Catalog Division until such time as the History of Medicine Division is transferred to Washington.

Letters have been addressed to Fellows of the American College of Surgeons and the American College of Physicians for portraits not now in the collection.

Plans are being made also to collect pictures of hospitals, both military and civilian. Exterior and interior views of hospitals of various types, sizes, and locations are desired. Souvenir booklets published at the time of celebrations such as formal openings of new buildings, centennials or other anniversaries, are acceptable.

The Library will be pleased to receive photographs and pictures not directly solicited. Unmounted, glossy prints approximately 8 by 10 inches in size, with the name of the subject and the year the picture was taken printed on the reverse, are preferred. Portraits also should be autographed on the front. They should be addressed to the Catalog Division, Army Medical Library, Washington 25, D. C.

The Winter Guest Lecture Series of the Naval Medical School opened on October 27, when Dr. A. R. Shands, Jr., Medical Director of the Alfred I. duPont Institute, spoke on "Some Problems of the Hip in Childhood."

Dr. Howard A. Rusk, Associate Editor of the *New York Times*, will be the speaker, December 8.

On January 26, 1951, Dr. George W. Thorn, Hersey Professor of the Theory and Practice of Physic, Harvard University, will discuss "Cortisone and ACTH—Their Current Application to Medical Problems."

The lectures are held in the auditorium of the National Naval Medical Center, Bethesda, Md., at 8:15 p.m.

The District of Columbia Chapter of the American Academy of General Practice has scheduled a series of lectures for the 1950–51 season. The series began on October 23 with Dr. Jacob Kotz speaking on "Office Gynecology."

Dr. Kotz will be the lecturer for two other meetings: November 27, "The Responsibility of the General Practitioner in the Management of Obstetrical Complications," and December 14, "Gynecology and Obstetrical Gynecology."

Dr. Leonard Peterson will present four papers: January 19, 1951, "Emergency Care of Fractures and Wounds"; February 19, "Lesions of the Hand and Forearm"; March 19, "Affections of the Hip"; and April 23, "The Foot in Pediatrics and Geriatrics."

The final meeting will be held on May 21, when Dr. Thomas McPherson Brown will discuss arthritis.

Physician-Veterans of World War II will hold its Annual Dinner on Pearl Harbor Night, Thursday, December 7, at the Mayflower Hotel.

Dr. Eugene J. McDonald, President of the Society, will preside at the dinner. Dr. Don Knowlton, who is in charge of arrangements for the banquet, promises a splendid program with a nationally known speaker, music, and entertainment. Assisting him will be Drs. A. J. B. Connolly, Ellis April, Gerald H. McAteer, John A. Kennedy, Alfred Suraci, Allan E. King, Jed W. Pearson, Jr., Peter N. Lombard, James A. Gannon, Jr., Ivy A. Pelzman, John R. Cavanagh, Eugene Lipow, Joseph J. Wallace, Edward C. Wilson, Jr., Raymond T. Holden and Oscar B. Hunter, Jr.

Any interested physician-veterans of World War II not now members of this organization are urged to contact Dr. William J. Walsh, 1834 Connecticut Avenue, for application blanks. Dues are payable now for 1950–51.

The Washington Psychiatric and the Washington Psychoanalytical societies will hold a joint meeting on Monday, December 11, in the Medical Society's building. Dr. Leo Bartemeier, of Detroit, President-elect of the American Psychiatric Association, will address members of the two groups on the subject, "Concerning the Etiology of Bronchial Asthma."

The Washington Psychiatric Society held its first meeting, September 23, Dr. Julius Schreiber read a paper entitled, "The Psychiatrist and the Community." Discussion was led by Drs. Addison M. Duval, William Granatir, and George Kriegman (Richmond).

At the second meeting, October 17, Dr. Curt Richter, of the Johns Hopkins Medical School, spoke on "Domestication of the Norway Rat and Its Medical and Psychiatric Implications." Drs. David McK. Rioch and Roy Hertz were the discussants.

On Saturday, November 18, Professor Harold Lasswell, of Yale University Law School, addressed the Society on "The Psychiatry of the Active Political Life."

The first physicians to register under the new medical draft law presented themselves on Monday, October 16, at 10 Washington hospitals which were designated as registration centers. These hospitals were Freedmen's, Gallinger, Garfield, Georgetown, Doctors, George Washington, Mount Alto, Providence, Sibley and St. Elizabeths. The first physicians required to register were those trained in Army or Naval medical programs during World War II, or otherwise deferred to continue education, and who served in the armed forces less than 21 months after finishing training and postgraduate work.

Previous to setting the registration date President Truman had appointed a National Draft Advisory Commission to assist Selective Service in calling physicians, dentists, and veterinarians into the armed services. This Commission consists of: Dr. Howard Rusk, New York, *Chairman*; Dr. William P. Shepard, San Francisco; Dr. James C. Sargent, Milwaukee; Dr. Leo Shoeny, New Orleans; Mrs. Ruth Kuehn, Pittsburgh; Dr. John B. Pastore, New York; and Dr. Harold Diehl, Minneapolis.

The National Advisory Commission has appointed local medical advisory boards to determine which physicians, dentists, and veterinarians are available to the armed forces and not "essential" to the civilian community. In Washington this board is made up of the following: Dr. G. Victor Simpson, of the District Medical Society, who heads the committee; Dr. E. Milburn Colvin, of the District Dental Society; and Dr. Daniel L. Seckinger, District Director of Health.

The Davis Memorial Goodwill Industries has enlarged its **rehabilitation services** to include a home extension program. Its plan is to give therapeutic service to those persons in the community who are now homebound so they can return to former employment or become eligible for other vocational training.

The range of activities can be geared to meet the needs of energy output prescribed by the physician and can be adapted to most physical disabilities of the upper extremities. The choice of activity will be made by the therapist after discussion with the physician.

Patients will be referred to the Home Extension Service by clinic physicians and through the medical social service department, or by private physicians. Referral cards are available to physicians and social service workers at the Goodwill Industries, 1218 New Hampshire Avenue, N. W., telephone Metropolitan 5940.

The D. C. Medical Bowling League began its new season, September 22, and will continue to bowl each Friday night at 9:30 until midnight at the Kalorama Bowling Center instead of the Brookland Bowling Center, which burned down last year.

New officers serving the League are Dr. John F. Finnegan, President, and Dr. Roy G. Klepser, Vice President. Mr. William B. Cochrane continues as Secretary-Treasurer.

George Washington University School of Medicine held its 127th Opening Assembly at 11 a.m., Monday, September 18. Dr. Dean F. Smiley, Secretary of the Association of American Medical Colleges, gave the principal address, which was entitled "The Place of the Medical College in the National Economy." He was introduced by Dr. Walter A. Bloedorn, Dean of the Medical School. Dr. Cloyd Heck Marvin, President of the University, gave a brief message of welcome, which is included as an editorial in this issue of the MEDICAL ANNALS. Dr. Smiley's address will appear in a later issue.

The 1950 freshman class consisted of 93 students from 23 states and the District of Columbia.

Following the Assembly, Dean Bloedorn was host to the speaker and a number of other distinguished guests at a luncheon at the Mayflower Hotel.

The Medical Library of the Naval Medical School, located at the National Naval Medical Center, Bethesda, Md., was formally redesignated as the **Edward Rhodes Stitt Library,** September 14. Renaming of the Library in honor of the late Rear Admiral Edward R. Stitt, M.C., U.S.N., was directed by the Surgeon General of the Navy, Rear Admiral Clifford A. Swanson, under authority of the Secretary of the Navy, in recognition of Admiral Stitt's distinguished service as a pioneer and leader in the field of tropical medicine and as Surgeon General of the Navy from 1920 to 1928. Rear Admiral Morton D. Willcutts, Commanding Officer, Naval Medical Center, and Captain Bartholomew W. Hogan, Commanding Officer, Naval Medical School, were the principal speakers.

At the meeting of the **Executive Board of the Medical Society of the District of Columbia,** September 25, several substitute committee appointments made by President Ballinger were approved. Vacancies in committee personnel had been occasioned by physicians recalled to active duty.

Dr. Leonard T. Peterson, Vice Chairman of the Committee on Arrangements for the 21st ANNUAL SCIENTIFIC ASSEMBLY, was appointed Acting Chairman in the absence of Dr. Karl C. Corley. Dr. Frank J. Eichenlaub was appointed to succeed Dr. Corley as Chairman of the Committee on Medical Care. Dr. Robert R. Montgomery will replace Dr. Joseph W. Cooch as a member of the Committee on Medical Care. Dr. Peter N. Horvath will succeed Dr. Raymond Maret as a member of the House Committee.

At the request of Dr. William Kurstin, Secretary-Treasurer of the Diabetes Association of the District of Columbia, the Board voted to endorse Annual Diabetic Week, November 12–18.

The Section on Radiology held its first fall meeting in the Medical Society's building on October 18. Dr. Eugene J. McDonald, Vice Chairman, assumed the chairmanship of the Section in the absence of Lt. Colonel Karl C. Corley, M.C., U.S.A., who had been recalled to military service.

Georgetown University School of Medicine was included in a list of institutions recommended to the Public Health Service for grants-in-aid by the National Advisory Health Council at its June meeting. The amount of the new grant, $6,588, will enable Dr. Harold Jeghers and Dr. Theodore Koppanyi to conduct a study on the effectiveness of an artificial kidney in the treatment of barbiturate intoxication in humans. Patients for the study will be drawn from local hospitals, by arrangements with the Police Department, and from private physicians.

George Washington University was awarded a grant of $20,000 by the American Cancer Society to maintain basic continuity of work in the University's Cancer Clinic. Dr. Walter S. Pratt, Jr., President of the District of Columbia Division of the American Cancer Society, presented the check to President Cloyd H. Marvin of the University, October 16, at the District Division's annual meeting in the Medical Society's building.

These funds will make possible the continuance of the clinical laboratory under the direction of Dr. E. Clarence Rice, the cytology laboratory in the Department of Surgery under Dr. Lois I. Platt, and the biology laboratory under the supervision of Dr. Ivor Corman.

Dr. Daniel L. Seckinger, District Director of Health, has selected an **advisory board for the Health Department's Bureau of Mental Hygiene.** He made his selection from a list of representatives designated by various organizations and agencies in the District of Columbia. The members of the Board are: Dr. Winfred Overholser, Dr. George N. Raines, Dr. Daniel Blain, Miss Florence A. Murray, the Reverend John W. Stafford, Dr. Richard H. Foster, Gerald M. Shea, Mrs. Mildred Percy, Miss Dorothy Thomas, Miss Genevieve Gabower, Dr. Jesse A. Keene, Mrs. David L. Bazelon and Irving S. Sooper. The first conference was held on September 26.

Dr. James N. Greear will be host to the **Clinico-Pathological Society** on December 19. Dr. Aubrey O. Hampton will present the scientific paper.

On October 17, members of the Society met at the home of Dr. C. P. Howze in McLean, Va. A paper on "Steroids and Resistance Factors" was read by Dr. William P. Herbst.

Dr. Wendell M. Willett will be host to the **Osler Society,** December 18, 1950. The program will consist of a scientific paper by Dr. W. Dabney Jarman and a case report by Dr. Harold R. Downey.

Dr. Frederic Chapman entertained the Society, October 16. Dr. John Parks discussed "Emergencies in Obstetrics Practice." Dr. Chapman presented a case report on abdominal pain.

Dr. William H. Sebrell has been appointed **Director of the National Institutes of Health,** Public Health Service, succeeding Dr. Rolla E. Dyer, who retired from Federal service, October 1. The appointment was made by Dr. Leonard A. Scheele, Suregon General of PHS.

Dr. Sebrell began his research career under Dr. Joseph Goldberger, the PHS scientist who discovered that pellagra is a dietary-deficiency disease. Dr. Sebrell's work has covered much of the field of the vitamin B complex; he was the first to recognize the dietary deficiency disease, ariboflavinosis.

Dr. Sebrell was appointed Director of the Experimental Biology and Medicine Institute, which was formed in 1948 by a consolidation of several existing laboratories at the National Institutes of Health. During World War II he acted as co-director of the National Nutrition Program, which coördinated the activities of all state agencies working in the field of nutrition. Temporarily assigned to the U. S. Army in 1945, he helped inaugurate a system for determining the nutritional status of civilians in occupied Germany.

Dr. Sebrell assisted in drawing up the first international standards of nutrition for the League of Nations, and has made many nutritional surveys for various governments and international organizations. In addition to this international work and his own laboratory research, he has pioneered in gaining acceptance of scientific nutrition as a regular function of modern state and local health departments in this country.

In recognition of his research achievements, Dr. Sebrell has received the Mead Johnson Award of the American Institute of Nutrition, and the Research Medal of the Southern Medical Association. For his work in Germany he received the Army Legion ol Merit.

He is a graduate in medicine of the University of Virginia; a member of the National Research Council and of the visiting lecturer staff of George Washington University School of Medicine; and holds the rank of Medical Director in the Public Health Service.

The headquarters of the **Pan American Sanitary Bureau,** Regional Office of the World Health Organization, was permanently established in the United States by action taken at the **13th Pan American Sanitary Conference,** which was held in Ciudad Trujillo, Dominican Republic, October 2–10. The Bureau has been located in Washington, D. C., since 1902.

Dr. Fred L. Soper was unanimously elected Director of the Bureau for a period of four years, beginning February 1, 1951. Dr. Soper has served as Director of the Bureau since 1947. His nomination for reëlection was made by the Cuban delegate, Dr. Felix Hurtado, at the plenary session, October 3. Upon the proposal of one of the delegates, the Conference temporarily suspended the rule of procedure which requires a secret ballot, and Dr. Soper was elected by acclamation.

Dr. Leonard Scheele, Surgeon General of the Public Health Service, was chief of the United States delegation to the conference.

Dr. Winfred Overholser attended the **First International Congress of Psychiatry** which was held in Paris, September 18–27. The Congress was attended by about 2,000 physicians and guests from 45 or more countries, according to Dr. Overholser. He was elected one of six Vice Presidents (the others were from Brazil, Sweden, Switzerland, England and Yugoslavia) and presided at one of the plenary sessions.

Dr. Walter Freeman presented a paper on lobotomy before the Congress, September 22. An excellent picture of him appeared in the *Journal du 1er Congres Mondial de Psychiatrie* of September 26, showing him before the microphones delivering his paper.

Dr. Harvey J. Tompkins, of the Veterans Administration, presented an exhibit of psychopathological art; he also prepared the American part of the historical exhibit.

Dr. Overholser included a brief account of the Congress in a letter written to the Secretary of the Medical Society from Spain, where he and Mrs. Overholser were traveling following the meeting. They visited Madrid and Barcelona, and returned to the United States from Southern France on the *S. S. America.*

Dr. Benjamin Karpman delivered a major address, September 14, (by invitation) before the **Second International Congress of Criminology,** which met in Paris. The subject of his address was "Psychoanalysis and Crime." Two other American speakers at the Congress were Professor Thorsten Sellin, of the University of Pennsylvania, and Professor Sheldon Glueck, of Harvard.

Dr. J. Winthrop Peabody attended the **First International Congress on Diseases of the Chest,** which was held in Rome, Italy, September 17–22. Dr. Peabody was Chairman of a Scientific Session and also presented a paper. After the meeting he visited medical centers in Geneva, Paris and London.

Dr. Peabody was President of the American College of Chest Physicians from 1942–44 and currently is Chairman of the College's Committee on Postgraduate Medical Education.

Dr. Richard L. Meiling, Director of the Office of Medical Services, Department of Defense, was appointed Chairman of the Department of Defense Blood Donor Campaign by Secretary of Defense George C. Marshall. Dr. Meiling will act as liaison with the American National Red Cross and will direct and coördinate the program with the Department of Defense.

Dr. Wallace M. Yater was a speaker at the Fall Conference of the Caylor-Nickel Clinic and the Wells County Medical Society at Bluffton, Indiana, on October 11. On October 17, he addressed the Medical Society of the State of Pennsylvania at the Annual Convention of the Society, on which occasion certificates were presented to members who had attended the postgraduate courses given by the Society. The subject of his address was "Keeping Abreast of Medical Progress."

Dr. Yater addressed a meeting of the Lackawanna County Medical Society in Scranton, Penna., October 24.

The 382nd Evacuation Hospital, which went on active duty at Fort Meyer, Va., September 11, was the first medical reserve unit to be called from the Washington area. Included in this unit, which has been sent to Fort Lewis, Washington, are **Colonel Raymond Maret,** Commanding Officer, **Lt. Colonel Karl C. Corley, Major Clarence R. Hartman and Major Joseph W. Cooch,** all Active members of the District Medical Society.

Two other members of the Society are also in service: **Lt. Colonel Francis D. Threadgill** is on active duty at the Station Hospital, Camp Edwards, Mass.; **Lt. Colonel Elmer W. Fugitt** is in Korea with the 8063rd Mobile Surgical Hospital.

Dr. Custis Lee Hall, President of the Ambulatory Fracture Association, gave the welcoming address to members and guests at the Association's 11th Annual Meeting, which was held in Cincinnati, Ohio, October 16–19. In addition to other presidential duties, he delivered a paper on "Pelvic Countertraction" with Dr. H. W. Wellmerling of Bloomington, Ill.

Dr. John A. Reed has been appointed to the National Advisory Arthritis, Rheumatism and Metabolic Diseases Council of the National Institutes of

Health by Surgeon General Scheele of USPHS. The first meeting of the Council was held on November 15.

Dr. Arthur A. Morris presented a paper, September 14, before the Third Annual Meeting of the Neurosurgical Society of America, which met at Sea Island, Georgia, September 14–17. The subject of his paper was "The Surgical Treatment of Psychomotor Epilepsy with Clinical Follow-ups of One Year or More."

Lt. Colonel Elmer W. Fugitt, M.C., U.S.A., of Washington, is referred to in an article describing medical care in Korea which appeared in *The Saturday Evening Post*, September 23, 1950. Miss Nora Waln, who wrote the article from personal observations, refers to Colonel Fugitt as the medical officer in charge of the 8063rd Mobile Surgical Hospital, one of three surgical hospitals in Korea, in operation just back of the front-line battalion-aid stations.

Miss Waln stated that the 8063rd was at its sixth location, the mobile hospitals moving as the Army moves. When buildings are not available, tents are provided. At the time she was gathering material for her article, Colonel Fugitt was using a schoolhouse in Changwon as a hospital; the classrooms had been converted to operating rooms. The author stated that the rooms were full of surgery cases and that every operating table was in use.

Drs. Lester S. Blumenthal and Marvin Fuchs presented a scientific exhibit at the Annual Meeting of the New York Academy of Medicine, October 9-20. The exhibit consisted of classified headaches and recommended treatments in accordance with studies made at the Headache Clinic of George Washington University Hospital; results of treatment of private patients were also included in the exhibit.

The new **Anderson Orthopedic Hospital** in Arlington, Va., built almost entirely with voluntary labor and with funds donated by residents of Northern Virginia, was opened for inspection by the public at a picnic and barbecue, September 16. Proceeds from the barbecue will be used to buy equipment for the new institution.

Dr. Harold Stevens has been promoted from Assistant to Associate Professor of Neurology at Georgetown University School of Medicine.

Dr. E. Trier Morch is now Assistant Professor of Anesthesiology at the University of Kansas School of Medicine. He moved to Kansas City, Kansas, late in October.

Dr. Francis C. Allman, senior radiologist at Providence Hospital, addressed the Society of Registered X-ray Technicians of Washington, October 3, in the Medical Society's library. He spoke on "Congenital Bowing of the Legs."

Dr. Charles P. Cake was elected President of the Southern Trudeau Society of the Southern Tuberculosis Conference. The Conference is comprised of workers in the field of tuberculosis in 15 Southern states and the District of Columbia.

Dr. Alvin Seltzer addressed the Medico-Chirurgical Society of the District of Columbia, October 26, on "What's New in Allergy." The meeting was held at Howard University School of Medicine.

MEMBERSHIP

The following applicants for membership will be voted on at the meeting of the Executive Board, December 18, 1950:

For Active Membership

Henry D. Beale, University of Michigan—1944
Lewis M. Burdette, Louisiana State University—1944
Ralph J. Carbo, Jr., Georgetown University—1947
John F. Crosby, Jr., Georgetown University—1943
Alvin J. Cummins, Johns Hopkins University—1944
James F. Dowd, George Washington University—1943
Urban J. Dowling, University of Nebraska—1936
Harold L. Dyer, University of Kansas—1940
Francis M. Forster, University of Cincinnati—1937
Thomas E. Griffin, University of Buffalo—1940
Harle Burton Grover, Temple University—1943
Milton Gusack, Johns Hopkins University—1941
W. Proctor Harvey, Duke University—1943
James E. Hayden, University of Pittsburgh—1927
Charles E. Horner, Georgetown University—1942
Karen Howard, University of Vienna—1938
Ardeshir B. Irani, Jr., George Washington University—1943
Alfred E. Jackson, University of Tennessee—1942

Dan F. Keeney, University of Maryland—1943
James L. Kelley, Jr., George Washington University—1943
Fernando R. Leyva, University of Havana (Cuba)—1943
Anatol J. Linder, Hahnemann Medical College—1946
Edward B. McCabe, Jefferson Medical College—1944
Marion Choisser Mills, George Washington University—1947
Valgene M. Milstead, George Washington University—1944
Edwin C. Mitchell, George Washington University—1943
Edward M. Ohaneson, Harvard University—1940
Bennett Olshaker, George Washington University—1945
Alvin E. Parrish, George Washington University—1945
Elbert T. Phelps, University of Nebraska—1944
Daniel Prager, New York Medical College—1946
Raoul C. Psaki, Georgetown University—1942
George E. Schreiner, Georgetown University—1946
George W. Sprehn, George Washington University—1944
Kaden Tierney, George Washington University—1942
Ralph D. Whitley, George Washington University—1940
William Haller Woodson, Medical College of Virginia—1943
William B. Yowell, George Washington University—1945

For Associate Membership

Henry E. Andren, College of Medical Evangelists—1936
Thomas M. Arnett, University of Maryland—1931
Alfred Baer, John Hopkins University—1945
Robert J. Barrett, Georgetown University—1942
Emilie A. Black, George Washington University—1945
Joe M. Blumberg, Emory University—1933
Maurice Z. Cooper, Long Island College of Medicine—1931
Albert H. Fechner, University of Nebraska—1933
H. Wayne Glickfield, Georgetown University—1949
Conrad L. Gossels, University of Berlin (Germany)—1931
Gerard J. Inguagiato, Georgetown University—1941
Frank Jaggers, George Washington University—1943
Patrick C. Jameson, Georgetown University—1947
Arthur J. Linden, New York Medical College—1936
Joseph H. McDonald, Georgetown University—1945
Marvin I. Mones, Johns Hopkins University—1947
Edmund P. Naccash, Georgetown University—1943
John Newcorp, Rush Medical School—1936
William W. Richards, University of California—1938
Richard Shuman, McGill University—1941

For Resident-Intern Membership

Max J. Fischer, Georgetown University—1946
Robert G. McCorkle, Jr., Baylor College of Medicine—1946
Felix D. Paolucci, Georgetown University—1947

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interests of our readers and as space permits. Physicians are urged to submit reviews of additional current books which, in their opinion, merit comment.

An Atlas of Human Anatomy. Barry J. Anson, Ph.D., Professor of Anatomy, Northwestern University Medical School. Price, $11.50. Pp. 518. Philadelphia: Saunders, 1950.

Santa Claus, M.D. W. W. Bauer, M.D., Director of Health Education, American Medical Association; Editor, *Today's Health* (formerly *Hygeia*). Price, $2.75. Pp. 266. Indianapolis and New York: Bobbs-Merrill, 1950.

Principles and Practice of Surgery. Jacob K. Berman, A.B., M.D., F.A.C.S., Indianapolis, Indiana; Associate Professor of Surgery, Indiana University School of Medicine; Associate Professor of Oral Surgery, Indiana University School of Dentistry; Chief Consultant in Surgery, Billing's Veterans Administration Hospital, Fort Benjamin Harrison, Indiana; Director of Surgical Education and Surgical Research, Indianapolis General Hospital. Price, $15.00. Pp. 1378, with 429 illustrations. St. Louis: Mosby, 1950.

Researches in Binocular Vision. Kenneth N. Ogle, Ph.D., Section on Biophysics and Biophysical Research; Research Consultant in the Section on Ophthalmology, Mayo Foundation and Mayo Clinic, Rochester, Minnesota. Price, $7.50. Pp. 345, with 182 figures and 26 tables. Philadelphia: Saunders, 1950.

A Text-Book of X-ray Diagnosis by British Authors in Four Volumes. Volume III, 2nd ed., edited by S. Cochrane Shanks, M.D., F.R.C.P., F.F.R., Director, X-ray Diagnostic Department, University College Hospital, London; and Peter Kerley, M.D., F.R.C.P., F.F.R., D.M.R.E., Director, X-ray Department, Westminster Hospital; Radiologist, Royal Chest Hospital, London. Price, $18.00. Pp. 830, with 694 illustrations. Philadelphia: Saunders, 1950.

The Physician Examines the Bible. C. Raimer Smith, B.S., M.D., D.N.B. Price, $4.25. Pp. 394. New York: Philosophical Library, 1950.

Pathologic Physiology: Mechanisms of Disease. William A. Sodeman, M.D., F.A.C.P., The William Henderson Professor of the Prevention of Tropical and Semi-Tropical Diseases, Tulane University of Louisiana School of Medicine; Senior Visiting Physician, Charity Hospital of Louisiana; Consultant in Medicine, U. S. Marine Hospital at New Orleans. Price, $11.50. Pp. 808, with 146 figures and 30 tables. Philadelphia: Saunders, 1950.

CORRESPONDENCE

Editor's Note: The following letter is directed to all physicians of the District of Columbia.

Washington, D. C., September 27, 1950

Dear Doctor:

The purpose of this letter is primarily to thank you for your interest and coöperation in the recent *Cancer Bulletin* survey which was undertaken by the Bureau of Cancer Control, District of Columbia Health Department.

A secondary purpose for this letter is to pass on to you the results of the survey. The survey was done to determine what service, if any, the *Bulletin* was performing, and to obtain the physicians' opinion of the *Bulletin*. A total of 1,938 questionnaires were sent out, of which 32 were returned because of no forwarding address. The Bureau received 1,134 replies to the 1,906 that were delivered. This is a reply rate of 59.5 per cent, which is significantly higher than expected in a mail survey. The *Bulletin* was read by 91.6 per cent of the physicians. While 89.3 per cent found the *Bulletin* interesting, 5.1 per cent did not. Of the 91.6 per cent reading the *Bulletin*, 88.9 per cent found it of benefit professionally, 7.8 per cent found it of no benefit, and 3.3 per cent were undecided.

The last question was whether the Bureau of Cancer Control should continue to send the *Cancer Bulletin* to the physicians in the District of Columbia. A majority, 950 or 87.2 per cent, wanted the *Bulletin* continued, 7.8 per cent or 85 physicians felt the *Bulletin* was not worth the expense or effort involved in its distribution, and 54 or 5 per cent were undecided.

Since the majority of the physicians in the District of Columbia wanted the *Cancer Bulletin* continued, the Bureau of Cancer Control will continue to distribute the *Bulletin* bi-monthly.

Sincerely,
Charlotte Donlan, M.D.
Director, Bureau of Cancer Control,
District of Columbia Health Department

Washington, D. C., August 25, 1950

The Editor
Medical Annals of the District of Columbia
1718 M Street, N.W.
Washington, D. C.

Dear Sir:

Seldom in recent years has the public read favorable publicity about American Medicine. Those who would destroy American democratic processes, including our present system of medical care, have seen to that.

I hereby propose that every medical society—city, state, and national—have each of its members take a loyalty oath to the effect that he or she is or is not a Communist. In so doing, the medical profession will perform a distinct public service; make a great contribution toward national security; learn who are its ruthless, hidden enemies within its folds; and regain much of its public favor which American traitors have taken from it in recent years.

As to what should be done with the culprits exposed, both our Federal Government and organized labor have established precedence!

Respectfully,
F. Daniel Suttenfield, M.D.

Miami, Fla., August 20, 1950

Mr. Theodore Wiprud
Secretary, Medical Society of D. C.
1718 M Street, N.W.
Washington, D. C.

Dear Ted:

You may be interested in hearing something about the Seventh Congress of the International College of Surgeons which met in Buenos Aires, Argentina, August 1 to 7. It was attended by surgeons from all countries of the "Free World." Among the countries which sent delegates were Spain, France, Italy, Great Britain, Austria, Germany, and the Philippines. Seventy-one surgeons from the United States traveled by boat, most of them with their families. Many surgeons from the United States, Canada, Central and South America traveled on the luxurious Pan American planes, which supply transportation to all of South America.

Dr. Catherine Birch, from Washington, gave her paper in Spanish and created a very favorable impression in Argentina. Present also were Dr. Jacob Kotz, his wife and son.

All the Universities in Argentina participated in the meetings, which were in the fine new Medical Faculties Building. Television of surgical procedures was used for the first time in Argentina and was made available through the courtesy of the Squibb and General Electric Companies.

General and Mrs. Juan Peron headed the list of Patrons for the Congress. Government facilities were made available to us and government funds helped to finance the Congress.

The following surgeons from the United States were guests of honor of the Argentine Congress: Drs. Wayne Babcock, Harry Bacon and Chevalier Jackson, Philadelphia; Dr. Herbert Acuff, Knoxville; Drs. Max Thorek and Earl Walker, Chicago; Dr. Julius Haas, New York; and myself. These surgeons were awarded the degree, "Doctoris Honoris Causa," by President Peron, thus automatically becoming Honorary Faculty Members of all the Argentine Universities, i.e., the Universities of Buenos Aires, Rosario, Córdoba, and La Plata.

At the invitation of the Section on Orthopaedics and Traumatology, I presented papers on "Treatment of Non-union of the Neck of the Femur" and "Bone Tumors." I was also given the opportunity of visiting hospitals in São Paulo, Brazil; Montevideo, Uruguay; Buenos Aires, Argentina; Santiago, Chile; Lima, Peru; and Panama City. A lecture given before the medical students at the University of San Marcos, the oldest University in the Americas, was an especially enjoyable occasion for me.

The members of the College were most cordially received by their South American fellow members. It was felt that the good-neighbor relationship was broadened and further strengthened by our varied and numerous contacts. We were all greatly impressed by the accomplishments in surgery of our neighbors to the South. There are many excellent hospitals in operation; many are being planned and are in the process of building. Many efficient private clinics are to be seen.

Our American confreres to the South were lavish in their hospitality, and the best traditions of the surgical fraternity were evident in their courteous reception of us wherever we went.

I am now spending a few days in Miami before returning to Washington.

Kindest regards.

Cordially,
Custis Lee Hall, M.D.
President, United States Chapter,
International College of Surgeons

MOSES HUBBARD DARNALL, M.D.

(1882–1950)

Dr. Moses H. Darnall, a Life member of the Medical Society of the District of Columbia, died, September 27, 1950, at the Veterans Hospital, Perry Point, Md., where he had been a patient for the past two years.

Dr. Darnall was born in Weston, Texas, September 6, 1882, the son of Joseph Rogers and Mary Ellen Darnall. He received his early education in the public schools of Collin County, Texas, and later attended McKinney Academy, McKinney, Texas; Grayson College, Whitewright, Texas; and Transylvania University, Lexington, Ky. He received his medical degree from George Washington University in 1907, and interned at St. Elizabeths Hospital the following year.

He was commissioned First Lieutenant in the Army Medical Corps in 1909; he served as Major with the Third U. S. Army Division in World War I, having charge of a large military hospital in France. His brother was the late Brigadier General Carl R. Darnall, former Commanding Officer of Walter Reed Army Hospital.

Following the war he practiced in the District of Columbia until he was forced to retire because of illness 10 years ago. His offices were in the Conard Building for many years.

He became affiliated with the District Medical Society in 1908. He was a member of the American Medical Association and the George Washington University Medical Society. Fraternal organizations of which he was a member included the George Washington Post of the American Legion, the Society of the Third Infantry Division, the Potomac-Hiram Chapter No. 8 of the Royal Arch Masons, and the Knights Templar.

Surviving are his wife, Mrs. Edna L. Darnall, of 2000 Connecticut Avenue, N.W., and a brother, John D. Darnall, of McKinney, Texas.

HAROLD ALBERT CRAFT, B.S., M.S., M.D.

(1901–1950)

Dr. Harold A. Craft, an Active member of the District Medical Society, died unexpectedly, September 27, 1950, at his home, 3109 16th Street, N.W.

Dr. Craft, the son of Merritt T. and Mary Jane Hine Craft, was born, November 19, 1901, in Susquehanna, Pa., and attended its public schools. He received his B.S. degree from Penn State College in 1926. For the next two years he worked with the Dr. John R. Williams Clinical Laboratory, Rochester, N. Y., as a chemist. He came to the District of Columbia in 1928 as an associate in biochemistry at George Washington University School of Medicine. Two years later he was appointed Assistant Professor of Biochemistry. He was awarded the degree of Master of Science by George Washington University in 1930 and remained on the faculty until 1933. He graduated in medicine from the same University in 1937, and continued his training as intern and resident at the University Hospital.

Dr. Craft began the private practice of medicine in the District of Columbia in 1939, maintaining his office in his home. He was on the courtesy staffs of George Washington, Doctors, Emergency, Sibley, Garfield and Homeopathic Hospitals.

He was elected to Active membership in the District Medical Society in 1939. He was a member of the American Medical Association, the George Washington University Medical Society, the American Chemical Society, and the Smith-Reed-Russell and William Beaumont honorary scientific societies of George Washington University. He belonged to a number of fraternal and social organizations, including Sigma XI, Phi Chi, the North Washington Lions Club, and the Kenwood Country Club.

His wife, Mrs. Mary Eva Craft, survives him together with a son, Robert Harold; a sister, Mrs. Charles Luscombe, of Susquehanna; and one brother, Kenneth Craft, of Montrose, Penna.

Quintuplets and Fecundity—Nichols

(*Continued from page 607*)

great fecundity, are not infrequent. They are such remarkable occurrences and so newsworthy that they are apt to be brought to light in the current press and the literature, and in general are of credible authenticity.

Thus, in the single recent month of April, 1950, 4 cases appeared in the news: A Vermont mother gave birth to triplets, living; she also had another living set of triplets, 4 years old, and 2 other children. An Alabama mother bore a set of quadruplets, 4 years after a pair of twins, and 4 other children. These 2 above cases were confirmed by photographic pictures of the infants. A visit was reported to an Oklahoma family of 19 children, including 5 pairs of twins. In France a bricklayer announced the birth of his 36th child, 24 by his first wife and 12 by the second.

The maximum reproductive capacity or record of the human female, for single and plural births, cannot be stated, but it can certainly range up into the 20's. A historical instance was the mother of Sir William Phips, colonial governor of Massachusetts, who bore 26 children.

As Benedick (*Much Ado About Nothing*) mused when he was contemplating matrimony, "the world must be peopled."

Dyspareunia—Bieren

(*Continued from page 611*)

the like. It may be a serious mistake to stir up waters that have been hitherto calm in this respect. If therapy is limited to the overcoming of physical obstruction and painful vaginismus, the results will generally be satisfactory.

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1. Bieren, R. E.: Treatment of menopause. Bull. School Med. Univ. Maryland, 1942, **26**, *222*.

Dominic Corrigan—Podolsky

(*Continued from page 623*)

ures against the hypertrophy of the organ, to deprive the system of the only power which enables the heart to carry on the circulation. . . . The repeated bleedings, the starvings, the enforcement of debilitating measures are totally unsuited to the disease we are considering."

Sir Dominic John Corrigan was one of the great students of the heart. It was he who gave us among the first clear insights into the deformities of the valves of the heart, how they could be detected and how they should be treated. He also told us why the heart behaved the way it does in health and disease and how it should be managed properly. His name is immortalized in medical literature as the first to describe the Corrigan pulse, a condition caused by an alteration in the valves of the aorta. He was one of the great heart healers.

MEDICAL SOCIETIES WITH LIMITED MEMBERSHIP

Washington, D. C.
1950–1951

SOCIETY	PRESIDENT	SECRETARY	NO. MEETINGS PER YEAR	DATE OF MEETINGS	PLACE OF MEETINGS
American Academy of General Practice, D. C. Chapter	I. P. Frohman	S. A. Thomas	9	On call	MSDC Building
Baltimore-Washington Dermatological	H. M. Robinson, Jr., Baltimore	I. Zeligman	7	3rd Thursday	Alternating Cities
Clinical Club of Washington	C. S. Coakley	R. R. Stevenson	7	1st Tuesday	Army-Navy Town Club
Clinical Society of Diabetes Association	S. Benjamin	W. Kurstin	8	On call	MSDC Building
Clinico-Pathological	T. J. Abernethy	T. Bradley	8	3rd Tuesday	Homes
Diabetes Association	M. Protas	K. H. Mish		On call	MSDC Building
Georgetown Clinical	M. R. Edmonston	R. C. Rush	7	2nd Tuesday	Hotel 2400
Georgetown University Medical Alumni Club	R. T. Holden	O. B. Hunter, Jr.	4	3rd Thursday, Oct., Nov., Jan., March	
George Washington University	R. McNitt	O. B. Hunter, Sr.	7	3rd Saturday	1335 H Street, N.W.
Hippocrates-Galen	W. F. Burdick	H. E. Martyn, Jr.	5	1st Thursday, Nov., Jan., Feb., March, April	Homes
International Medical Club	E. G. Breeding	P. S. Constantinople		On call	Mayflower Hotel
Jacobi	P. R. Wilner	H. S. Weitzman	9	3rd Monday	Washington Hotel
Kober	A. F. Kreglow	J. W. Trenis	8	3rd Monday	Army-Navy Town Club
Louis Mackall	M. Foret	R. B. Nelson	7	3rd Thursday	Kennedy-Warren
Medical Arts	E. J. C. Hildenbrand	H. D. Ecker	8	2nd Thursday	Kennedy-Warren
Osler	W. S Anderson	W. M. Willett	8	3rd Monday	Homes
Pan American (D. C. Branch)	F. A. Martinez	A. Castro	4	On call	
Physician-Veterans of World War II	E. J. McDonald	W. B. Walsh		On call	MSDC Building
Potomac Society of Anesthesiologists	D. Stubbs	J. B. Hoberman	4	On call	
Reserve Officers Association, D. C. Medical Chapter	F. D. Threadgill	A. Bacheson		On call	MSDC Building
Rheumatism	T. McP. Brown	D. C. Crain	3	Oct., Feb., May	MSDC Building
St. Elizabeths Hospital	B. A. Cruvant	N. Taub	3	Fall, Winter, Spring	St. Elizabeths Hospital
Washington Academy of Medicine	A. Wetmore	E. C. Albritton	3	Nov., Feb., May	Roger Smith Hotel
Washington Academy of Surgery	A. L. Riddick	R. L. Jackson	4	2nd Monday, Oct., Dec., Feb., April	Mayflower Hotel
Washington Gynecological	J. B. Jacobs	A. E. King	5	4th Saturday, Oct., Nov., Jan., March, May	Willard Hotel
Washington Heart Association	B. J. Walsh	J. W. Latimer		On call	MSDC Building
Washington Medical and Surgical	C. P. Reeves	G. B. Trible	6	4th Monday	Hotel 2400
Washington Ophthalmological	T. A. Egan	J. Dessoff	4	1st Monday, Nov., Jan., March, May	Kennedy-Warren
Washington Orthopedic Club	W. J. Tobin	A. B. Rohrbaugh, Jr.	7	2nd Monday	MSDC Building

MEDICAL SOCIETIES WITH LIMITED MEMBERSHIP—*Continued*

SOCIETY	PRESIDENT	SECRETARY	NO. MEETINGS PER YEAR	DATE OF MEETINGS	PLACE OF MEETINGS
Washington Psychiatric	R. T. Morse	H. P. Laughlin	9	Scheduled	MSDC Building
Washington Psychoanalytic	R. E. Buxton	R. A. Cohen	8	2nd Saturday	MSDC Building
Washington Society for Advancement of Psychotherapy	L. E. Wexberg	B. Karpman		On call	Homes
Washington Society of Pathologists	H. F. Smetana	H. L. Stewart	8	1st Saturday	Army Institute of Pathology
Washington Urological	J. C. Kimbrough	R. G. Gable	6	Every 6 wks.	Doctors Hospital
Women's Medical	E. Kahler	E. W. Kailin	10	1st Tuesday	Doctors Hospital

Note: Most of these societies begin their meetings in October and continue through April or May.

SECTIONS OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

1950–1951

SECTION	CHAIRMAN	SECRETARY	NO. MEETINGS PER YEAR	DATE OF MEETINGS	PLACE OF MEETINGS
Anesthesiology	W. E. Bageant	J. B. Hoberman	4	4th Monday, Nov., Jan., March, May	MSDC Building
Dermatology and Syphilology	H. H. Hazen	N. M. Kanof	2	On call	MSDC Building
Gastroenterology	W. P. Baker	E. W. Nicklas	4	2nd Monday, Nov., Jan., March, May	Homes
General Practice	S. C. Cousins	H. S. Gates	8	4th Monday*	MSDC Building
Neurology and Psychiatry	J. M. Williams	H. D. Shapiro	8	1st Thursday*	MSDC Building
Otolaryngology	V. R. Alfaro	T. F. Williams	5	3rd Tuesday, Oct., Nov., Jan., March, May	Army-Navy Town Club
Pathology and Laboratory Medicine	O. B. Hunter, Sr.	K. L. McCoy		On call	MSDC Building
Pediatrics	G. Maksim	J. E. Cassidy		On call	Children's Hospital
Radiology	K. C. Corley	W. M. Clopton	4	3rd Thursday, Oct., Jan., March, May	MSDC Building

* October–May.

Our Living Past Presidents—Willson

(*Continued from page 644*)

that never should have begun. With these experiences in mind and as a matter of conscience he initiated the formation of a National Committee on Federal and State Contraceptive Legislation for the purpose of combating and repealing state and national laws which restrict the freedom of physicians to advise and prescribe contraceptive devices in accordance with their professional judgment. This activity, which was eminently successful, Dr. Willson feels has been one of the most important achievements of his career. But conviction and courage cost. The public advocacy of contraception as a proper and necessary procedure in preventive medicine brought him into conflict with ecclesiastical authority and he was asked to resign as Professor of Obstetrics at Georgetown.

Many more things this man has done. He is, of course, a Fellow of the AMA and a Licentiate of the American Board of Obstetrics and Gynecology; but also he is, or has been, a member of the Georgetown Clinical Society, the Clinico-Pathological Society, the Washington Gynecological Society, and also of course, he has been president of them all.

During the first World War he was commissioned Major in the U. S. Army Medical Corps and, owing to his eminence in obstetrics, was attached to The Surgeon General's Office in Washington, practicing that branch of medicine until honorably discharged in 1919. That interval of military duty, limited to obstetrics, determined his continued devotion to that specialty exclusively after his return to civilian life.

This is the picture of quite a man! Whence did he spring? His father was Sidney Lewis Willson, descended directly from Benjamin Willson, who immigrated from England in 1705. Benjamin's wife was Elizabeth Sprague. This family is all pure English. Prentiss Willson's mother was also of English stock, with a dash of Irish, and was descended through a Warren, who derived from that John Warren who was born in England in 1585 and came to America on the *Arabella* with Governor Winthrop in 1630.

Thus, British to begin with, Colonial to season with, Prentiss Willson is American through and through. His father, Sidney Lewis Willson, as a boy of 18, lost both legs below the knee at the battle of Gettysburg; after the Civil War he settled at Fredonia, N. Y., where he married Lucy Fenton Staats. Prentiss was born in Fredonia, August 2, 1882. The family moved to Washington in 1885 when his father became a Government official. His brother, Russell Willson, graduated from the U. S. Naval Academy in 1906 and died in 1948 after a most distinguished career; at one time Superintendent of the Naval Academy, he rose to Vice Admiral, having been Chief of Staff to Admiral King in World War II.

In 1908 Prentiss Willson married a schoolmate of high school days, Edith Emma Everett, daughter of Silas Shepard and Emma Jane (Wade) Everett. She is a graduate of Wilson Normal School and taught in the public schools until her marriage. Their three children are Eleanor Everett (Mrs. James Dent O'Neal), Barbara (Mrs. John Ludgate Laskey), and Dr. Prentiss Willson, Jr., who is now practicing obstetrics and gynecology in Washington. There are nine grandchildren. May the tribe increase!

Why do we not see Prentiss's tall, distinguished form these days? He is practicing preventive medicine on himself and has wisely taken up his abode in Florida where, we may be sure, he and his beautiful and accomplished wife are making a home as charming as the one they lately had on Albemarle Street.

HENRY C. MACATEE, M.D.

MEDICAL ANNALS
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VOLUME XIX *December, 1950* NUMBER 12

PENICILLIN PROPHYLAXIS OF POSTOPERATIVE BACTEREMIA AND BACTERIAL ENDOCARDITIS*

PAUL A. LICHTMAN, M.D.
Washington
ARTHUR M. MASTER, M.D., F.A.C.P.
New York City

SUBACUTE bacterial endocarditis may develop in persons with rheumatic or congenital heart disease following operative procedures such as tooth extraction and tonsillectomy. With the advent of sulfonamides and, more recently, penicillin, it has become routine to administer antibiotics to persons with such heart disease prior to and following manipulation.[1-4] This method has usually been reserved for patients with obvious rheumatic or congenital heart disease, most of whom are in the younger age groups. However, the problem is actually much greater, since it is becoming increasingly evident that subacute bacterial endocarditis often occurs in persons over the age of 50[1, 5, 6] and in persons in whom heart disease is present but not obvious. Concomitantly, recent autopsy studies have shown a surprisingly high incidence of valvular lesions, rheumatic and sclerotic, in older persons.

Our study was undertaken to determine: (1) the incidence of valvular damage in older age groups, noted clinically and pathologically; (2) to confirm not only that subacute bacterial endocarditis occurs in older people who have rheumatic valvular damage, but also in some who have other types of valvular lesions and other endocardial changes; (3) to study further the factors predisposing to bacteremia and the development of infectious endocarditis; (4) to propose the prophylactic administration of penicillin to older persons who are about to undergo various diagnostic and surgical procedures when valvular damage is present or suspected; and (5) to consider the advisability and to suggest routine administration of penicillin prophylactically to every older patient while undergoing many diagnostic and all surgical procedures even when heart disease is not demonstrable.

In the older age group it is occasionally difficult to determine the etiologic background of valvular disease, that is, to distinguish between rheumatic and Mönckeberg's or arteriosclerotic lesions,[1, 7-13] as indicated by Zeman,[1] because of the difficulty frequently encountered in unraveling the effects of more than one etiologic agent in the aging heart. Anatomically, in favor of a rheumatic etiology is the presence of stigmata of an extinct rheumatic process such as endocardial thickening, increased vascularity of the subendocardium, increase of endocardial smooth muscle, vascularization and thickening of the valves, fusion at the aortic commissures, formation of collagenous plaques at the line of closure, involvement of the chordae tendineae, and evidence of pericarditis.[11] In favor of an arteriosclerotic lesion, which usually attacks the aortic valve, the mitral valve being involved infrequently, is the finding of atheromatous plaques with calcification in the absence of definable rheumatic changes. This is particularly true in isolated lesions of the aortic valve and ring without mitral valve changes. The pathogenesis of calcific disease of the aortic valve has been a moot question in numerous investigations. Schval and Gross,[11] drawing attention to the essentially different gross and microscopic picture of the Mönckeberg and rheumatic valvular lesions, indicated that the heart with an uncomplicated Mönckeberg process showed practically none of the stigmata of extinct rheumatic fever and no other evidence which would indicate that the process is secondary to inflammatory changes. However, they significantly stated that in persons with a predisposition toward collagen involution and deposition of lipoid and calcium, inflammatory lesions with subsequent deformity of the aortic valve may impose sufficient strain on the valve to initiate the Mönckeberg process. The recent study of Karsner and Koletsky[14] would seem definitely to place calcific disease of the aortic valve, with few exceptions, among the sequelae of rheumatic fever. This may also be true of other valvular lesions not obviously rheumatic in origin.

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* From the Cardiographic Department, Mount Sinai Hospital, New York, N. Y.

In order to determine the incidence of valvular lesions in older persons figures were compiled from necropsy protocols at the Mount Sinai Hospital in 406 consecutive patients 50 years of age and older (table 1). The criteria noted above[11, 12, 13] were utilized in determining rheumatic or arteriosclerotic etiology. Anatomic evidence of heart disease was noted in 342 cases. Rheumatic lesions were present in 176 cases (51.5 per cent), and arteriosclerotic heart disease was predominant in 133 cases (38.9 per cent). The remainder included 3 cases of congenital, 3 of syphilitic, 7 of pulmonary, 6 of hypertensive, and 14 of miscellaneous heart disease. In these 342 cases with heart disease, valvular damage was present in 234, more than half the patients.

TABLE 1

Age Incidence and Types of Heart Disease in 406 Consecutive Autopsies of Patients 50 Years Old and Older

TYPE OF HEART DISEASE			AGE INCIDENCE			
Heart Disease	Total Number	Per cent of Total	50–59	60–69	70–79	80–89
Rheumatic	176	51.5	66	77	25	8
Arteriosclerotic	133	38.9	42	63	27	1
Syphilitic	3	.9	2	1	0	0
Congenital	3	.9	2	1	0	0
Pulmonary	7	2.0	0	5	2	0
Hypertensive	6	1.7	3	3	0	0
Miscellaneous*	14	4.1	7	5	2	0
	342	100.0				
No heart disease	64					

* Parenchymatous degeneration in malignant disease, 6 cases; lymphosarcoma, 2 cases; beri-beri (?), 1 case; tuberculosis, 2 cases; leukemia, 2 cases; agranulocytosis, 1 case.

Of the 234 instances of valvular heart disease, 176 were rheumatic (75 per cent), 47 were arteriosclerotic (20 per cent), and 11 were grouped as miscellaneous. In the rheumatic cases (table 2) the mitral valve only was involved 70 times, the aortic valve alone twice, and both valves 90 times. The mitral and tricuspid valves were altered in 4 cases, and the mitral, aortic and tricuspid valves in 5. Five cases of minimal lesions of the mitral leaflets (thickening at the line of closure) were included because of other evidence, such as involvement of the chordae tendineae or lesions of the left auricular wall. The damage in the remainder of valvular lesions varied from marked thickening of the valves to all of the usual manifestations of chronic rheumatic valvulitis.

The mitral valve alone and in combination was involved 196 times or in almost half (48 per cent) of the entire 406 cases studied. This points to the significance of an apical systolic murmur in persons in the older age group, as has been stressed by Master,[15] who is of the opinion that, unless disproved, a loud blowing systolic apical murmur is indicative of an organic lesion. Furthermore, a valvular lesion may be present without producing a murmur.

TABLE 2

Valvular Disease in 406 Consecutive Autopsies of Patients 50 Years Old and Older

ETIOLOGY	NO. CASES	MITRAL ALONE	AORTIC ALONE	MITRAL AND AORTIC	MITRAL AND TRICUSPID	PULMONARY AND AORTIC	MITRAL AORTIC PULMONARY	MITRAL AORTIC TRICUSPID	TOTAL VALVE INVOLVEMENT
Rheumatic	176	70	2	90	4	1	4	5	176
Arteriosclerotic	133	2	32	13	0	0	0	0	47
Syphilitic	3	0	3	0	0	0	0	0	3
Congenital	3	0	0	0	0	0	0	0	0
Hypertensive	6	0	0	0	0	0	0	0	0
Pulmonary	7	0	0	0	0	0	0	0	8
Miscellaneous*	14	6	0	2	0	0	0	0	0
	342	78	37	105	4	1	4	5	234

* Parenchymatous degeneration in malignant disease, 6 cases; lymphosarcoma, 2 cases; beri-beri (?), 1 case; tuberculosis, 2 cases; leukemia, 2 cases; agranulocytosis, 1 case.

In the 47 cases of arteriosclerotic heart disease with valvular lesions (table 2) features other than rheumatic predominated or a rheumatic etiology could not be ascertained. The mitral valve alone was involved in 2 cases, the aortic valve alone in 32 cases, and both in 13 cases.

Although rheumatic valvular disease is the commonest precursor of bacterial endocarditis, it has been shown clinically and experimentally that the latter may occur in other types of valvular and endocardial lesions in the presence of bacteremia.[2, 16, 17, 18] These other predisposing valvular and endocardial changes include sclerotic degenerative changes in the valve and those following coronary occlusion, as well as changes due to nonbacterial collagen alterations and nonbacterial thrombotic alterations.[2, 16, 17, 18]

Zeman[1] and Bayles and Lewis[6] found preexisting rheumatic heart disease in approximately 60 per cent of their patients over 40 years of age with subacute bacterial endocarditis. In the remaining cases arteriosclerotic, luetic, congenital, or thyrotoxic heart disease was present. Pursuing the subject of the etiologic substrata of subacute bacterial endocarditis in older people, we reviewed the clinical and autopsy material in 20 cases of this disease at this hospital in patients over 50 years of age (table 3). Nine showed pre-

TABLE 3

Preëxisting Heart Disease and Age Incidence in 20 Cases of Subacute Bacterial Endocarditis and 11 Cases of Acute Bacterial Endocarditis in Patients 50 Years Old and Older

TYPE OF HEART DISEASE	TOTAL NUMBER	AGE INCIDENCE			
		50–59	60–69	70–79	80–89
Subacute Bacterial Endocarditis (20 Cases)					
Rheumatic	9	4	3	2	0
Arteriosclerotic	6	2	1	3	0
Syphilitic	1	1	0	0	0
Congenital	1	1	0	0	0
Undetermined etiology	2	1	1	0	0
No heart disease	1	0	1	0	0
Acute Bacterial Endocarditis (11 Cases)					
Rheumatic	6	4	2	0	0
Arteriosclerotic	2	0	2	0	0
Syphilitic	0	0	0	0	0
Congenital	0	0	0	0	0
Undetermined etiology	1	0	0	1	0
No heart disease	2	1	1	0	0

vious rheumatic disease, 7 of these on postmortem examination. Six other patients were considered arteriosclerotic on clinical grounds, although a rheumatic basis could not be definitely excluded in the absence of pathologic examination. In 1 case, syphilitic, in 1 case, congenital, and in 2 instances, undetermined types of heart disease were found. In the last case no evidence of previous disease was present. Acute bacterial endocarditis occurs more frequently on previously normal valves than does subacute endocarditis. The presence in the blood stream of an organism more virulent than the *Streptococcus viridans* and the factors of mechanical impact and duration of impact of blood containing these organisms on the endocardium, coupled with diminished resistance of the individual and diminished clearing of the blood stream as discussed by Keefer,[16] aid in the development of infected foci on an uninjured valve. In 11 cases of acute bacterial endocarditis in patients over 50 years of age, 6 presented chronic rheumatic heart disease, and in 2 arteriosclerosis was present. In 2 cases there was no preëxisting heart disease, and in 1 case heart disease of undetermined origin was found (table 3).

Correlating the available information as to the development of subacute bacterial endocarditis not only in hearts damaged by rheumatic endocarditis but also in hearts damaged by other disease processes, there is considerable evidence to indicate that heart disease other than rheumatic may so damage the valvular tissue as to render it vulnerable to the onslaught of bacteria in the course of a bacteremia and thus predispose to the development of an infectious endocarditis. This is also indicated by our own series, which includes various types of valvular damage in 234 hearts of 406 autopsied cases, and 20 cases of subacute and 11 cases of acute bacterial endocarditis with not only rheumatic but also other types of valvular damage serving as a nidus for bacterial implantation in the presence of a bacteremia.

In reviewing past and present literature for the procedures that may produce transient bacteremia and thus may precipitate endocarditis, foci of infection in the upper respiratory tract and mouth were found to be the most common sources of infection. The transient bacteremia accompanying surgical procedures in this area is not always adequately handled by the body's defense mechanism. There are numerous reports of subacute bacterial endocarditis following tonsillectomy,[19–24] infection of the nasal sinuses,[21, 22] aural infections, general "colds," extraction of teeth,[12, 20, 22, 24, 25] and even chewing.[26]

A number of other conditions have been reported as providing a portal of entry for the development of subacute bacterial endocarditis. Among these are wound and skin infections, such as phlegmons and carbuncles,[27] incised furuncles,[22, 27] glandular inflammations,[24] toe infections,[21] bone trauma and osteomyelitis,[22] thrombophlebitis, and Raynaud's disease. Kidney infections[21] and prostatic massage[23] have been mentioned as predisposing factors. In fact, as recently reported by Baehr and Gerber,[3] surgical and diagnostic procedures of the genitourinary tract are rather frequent precursors of infectious endocarditis. There has been mention of pelvic inflammatory disease and postpartum infection.[21, 28, 29] Cancer of the lung[22, 24] and bronchial infection have been noted as significantly preceding the development of subacute bacterial endocarditis. The gastrointestinal tract as a portal of entry has been discussed by Horder.[30] Transient bacteremia has been noted in animals after a high fat meal, and, as reported by Crohn and Schwartzman,[31] bacteria of many sorts may pass through the intestinal mucosa during digestion of fatty substances and are present in the chyle and in the blood for a few hours. Cancer of the stomach, infection of the gallbladder, acute gastroenteritis, and surgical procedures of the gastrointestinal tract[21, 24, 28, 31, 32] contribute to the development of subacute bacterial endocarditis.

In a study of special factors predisposing to bacteremia and the development of infectious endocarditis, 321 clinical records of Mount Sinai Hospital patients with this disease were reviewed. Interest was focused primarily on mucosal traumatizing conditions, instrumental diagnostic procedures, and minor and major surgical procedures. Cases beginning with fever, malaise, fatigue, nasopharyngitis, tonsillitis, chills, and other nonspecific manifestations or those whose primary manifestations were embolic were not included. Seventy-seven cases were of special interest in that the onset of the disease could reasonably be related to a known factor.

Of these 77 cases thus selected, 57 had subacute bacterial endocarditis and 20 the acute variety. In the 57 patients with subacute bacterial endocarditis there were 30 surgical and 8 instrumental diagnostic procedures related to the onset of the disease. There were an additional 19 cases following various types of trauma.

Table 4 presents the operative procedures which predisposed to the development of subacute bacterial endocarditis in 30 cases. Preexisting heart disease and organisms cultured in each case are also indicated thereon. Dental extractions preceded 12 cases. Genitourinary operative procedures were considered responsible for 6 cases. Nose and throat operations other than tonsillectomy preceded 4 cases. There was 1 case of operation for perianal ulcer and 1 of cholecystectomy.

TABLE 4

Thirty Cases of Subacute Bacterial Endocarditis with Operative Procedures as Predisposing Factors

AGE	OPERATION	HEART DISEASE	ORGANISM
22	Tooth extraction	Rheumatic	*Str. viridans*
67	Tooth extraction	Rheumatic	*Str. viridans*
28	Tooth extraction	Luetic and rheumatic	*Str. viridans*
29	Tooth extraction	Rheumatic	*Str. viridans*
32	Tooth extraction	Rheumatic	*Str. viridans*
34	Tooth extraction	Rheumatic	*Str. viridans*
20	Tooth extraction	Rheumatic	*Str. viridans*
58	Tooth extraction	Rheumatic	Diphtheroids
29	Tooth extraction	Congenital	*Str. viridans*
	Tooth extraction	Type undetermined	*Str. viridans*
35	Tooth extraction	Rheumatic	*Str. viridans*
63	Tooth extraction	Rheumatic	Parainfluenza group
53	Suprapubic cystotomy	Arteriosclerotic	Enterococcus
56	Fulgurating urethral papilloma	Type undetermined	*Staph. aureus*
70	Transurethral prostatectomy	Rheumatic	Enterococcus
70	Suprapubic prostatectomy	Arteriosclerotic	*B. proteus*
30	Renal lithotomy	Rheumatic	*Str. viridans*
65	Prostatectomy	Arteriosclerotic	*Str. hemolyticus*
28	I. & D. abscess rectovaginal septum	Rheumatic	Parainfluenza group
33	Salpingo-oöphorectomy	Rheumatic	
33	D. & C. (tubo-ovarian abscess)	Rheumatic	Bacteria free
32	Septic (instrumental) abortion	Rheumatic	*Str. viridans* and enterococcus
43	I. & D. pelvic abscess	Rheumatic	Cultures negative
45	Plastic repair (gynecologic)	Type undetermined	Enterococcus
67	Discharging ear, mastoidectomy	Rheumatic	Pneumococcus XXV
49	I. & D. abscess ear canal	Rheumatic	Pneumococcus VIII
35	Sinus operation	Rheumatic	
60	I. & D. ear abscess	Rheumatic	
61	Perianal ulcer	Type undetermined	Enterococcus
35	Cholecystectomy	Rheumatic	Parainfluenza and *Str. viridans*

Of the remaining 27 cases of subacute bacterial

TABLE 5

Eight Cases of Subacute Bacterial Endocarditis with Diagnostic Procedures as Predisposing Factor

AGE	DIAGNOSTIC PROCEDURE	HEART DISEASE	ORGANISM
56	Bronchoscopy	Syphilitic	*Str. viridans*
71	Colonic irrigation and barium enema	Rheumatic	*Str. viridans*
23	Sigmoidoscopy	Rheumatic	*Str. viridans*
28	Cystoscopy	Rheumatic	*Str. viridans*
52	Cystoscopy	Coronary artery disease	*Str. viridans*
35	Cystoscopy	Rheumatic	*Str. viridans*
70	Cystoscopy and prostatectomy	Coronary artery disease	*B. proteus*
52	Cystoscopy	Type undetermined	Enterococcus

endocarditis in which the disease could be related to an ascertainable factor, there were 8 that followed an instrumental diagnostic procedure (table 5). Bronchoscopic examination was apparently responsible for 1 of these cases; colonic irrigation and barium enema in a case of diverticulitis preceded another, and sigmoidoscopy was followed by development of subacute bacterial endocarditis in a third. There were 5 cases following cystoscopy. The important factor to be noted here, however, is that any diagnostic instrumental procedure that may traumatize a mucosal surface exposed to bacteria may facilitate the entrance of an organism to the blood stream with the possibility of development of infectious endocarditis. There were 19 cases in which the subacute bacterial endocarditis developed in conditions other than operations or instrumental diagnostic procedures (table 6). There were 6 cases following manipulation such as "cleaning the teeth." There were 4 cases in the obstetric and gynecologic classification, 2 occurring during

TABLE 6

Nineteen Cases of Subacute Bacterial Endocarditis Following Conditions Other Than Operations or Diagnostic Procedures

AGE	PREDISPOSING CONDITION	HEART DISEASE	ORGANISM
30	Dental manipulation (no extraction)	Rheumatic	*Str. viridans*
46	Dental manipulation (no extraction)	None (?)	*Str. viridans*
37	Dental prophylaxis (gingivitis)	Rheumatic	Negative culture (autopsy)
23	Dental prophylaxis (gingivitis)	None (?)	Pleuropneumonialike
38	Dental prophylaxis (gingivitis)	Type undetermined	*Str. viridans*
49	Malocclusion of teeth and trauma	None	Gram positive cocci and pneumococcus
33	Pregnancy	Rheumatic	*Str. viridans*
29	Pregnancy	Congenital	No culture
21	Infection of vulva	Rheumatic	*Str. hemolyticus*
14	Infection of vulva	Congenital	*Str. viridans*
52	G. I. complaints, 5 years	Congenital	No culture (autopsy)
36	G. I. complaints, 2 years	Rheumatic	Bacteria free
50	G. I. complaints, 4 years	Rheumatic	Bacteria free
55	Acute enteritis	Type undetermined	*Str. viridans*
71	Acute enteritis, mushroom poisoning	Coronary artery disease	*Str. viridans*
26	Generalized urticaria	Rheumatic	Gram positive cocci
26	Following German measles	Rheumatic	*Str. viridans*
19	"Bone bruise"	Rheumatic	*Str. viridans*
21	Nonpruritic papular eruption	Rheumatic	*Str. viridans*

pregnancy and 2 others with pelvic infections. There were 3 cases with a history of gastrointestinal complaints of 2 to 5 years' duration, 1 case of acute enteritis after overindulgence in food, and 1 case of acute enteritis with mushroom poisoning and apparently no other predisposing factor. In the remaining 4 cases in this group of 19 the subacute bacterial endocarditis followed a generalized nonpruritic papular eruption caused by neoarsphenamine; a severe, generalized attack of bacterial urticaria; traumatic bone injury; and German measles.

The 20 cases of acute bacterial endocarditis were similarly classified as to portal of entry of the precipitating organisms (table 7). There were 9 surgical procedures, 2 instrumental diagnostic manipulations, 1 case following the passage of a urethral sound, 4 cases of acute enteritis, 1 case with infection of the leg (thrombophlebitis?), 2 cases of acute sinusitis, and 1 case of cancer of the liver.

TABLE 7

Twenty Cases of Acute Bacterial Endocarditis and Predisposing Factors

AGE	PREDISPOSING CONDITION	HEART DISEASE	ORGANISM
43	Hysterectomy and oöphorectomy	None	*B. coli*
51	Sigmoidoscopy and exploratory laparotomy	Rheumatic	(autopsy)
86	Fracture hip and operation	Rheumatic (?)	*Str. viridans*
54	Excision of mass in axilla	Rheumatic	*Str. hemolyticus*
55	Submucous resection and polypectomy	Rheumatic	*Str. hemolyticus*
53	I. & D. paronychia	None (?)	*Staph. aureus*
22	Incision and squeezing abscess of neck	Rheumatic	*Staph. aureus*
34	Furunculosis and chronic pyelonephritis	Rheumatic	*Staph. aureus*
65	Litholapaxy	Rheumatic	Enterococcus
75	Resection papilloma bladder	Undetermined	Enterococcus
63	Passage of sound, urethral strictures	Arteriosclerotic	*Staph. aureus*
44	Cystoscopy	Rheumatic	*B. coli* and *B. proteus*
26	Acute enteritis	Rheumatic	*Staph. albus*
22	Acute enteritis	Rheumatic	*Staph. albus*
45	Acute enteritis	Rheumatic	Cultures negative (autopsy)
62	Acute enteritis	Rheumatic	Gram positive cocci
16	Acute sinusitis	Rheumatic (?)	Pneumococcus XIV
16	Acute sinusitis	None	*Staph. aureus*
68	Pneumonia? thrombophlebitis leg?	Arteriosclerotic	*Str. hemolyticus*
62	Cancer of liver (no fever)	None	(autopsy)

It is thus apparent, both from the literature and the cases we have presented, that many types of operations and diagnostic procedures may facilitate the passage of microörganisms into the blood stream with development of infectious endocarditis.

Since we have indicated that valvular damage is so common in people over 50, and since operative and diagnostic procedures may produce a bacteremia with implantation on a damaged valve and result in infectious endocarditis, it is natural to consider what prophylactic measures are indicated in order to prevent subacute and acute bacterial endocarditis in such cases.

The prophylaxis of subacute bacterial endocarditis has been greatly enhanced by the availability of penicillin, because of its bacteriostatic and bactericidal power against the organisms usually responsible for this disease. Prior to the introduction of penicillin the use of sulfonamides was advocated in patients with rheumatic heart disease before tooth extraction and tonsillectomy because of the transient bacteremia frequently encountered in such procedures. More recently the use prophylactically of penicillin alone or in conjunction with the sulfonamides in such procedures in rheumatics has been advocated.[20, 33] Recognition of the possibility of re-infection in healed cases of subacute bacterial endocarditis has prompted removal of foci of infection in such cases before they are permitted to leave the hospital by Loewe,[34] who has advocated the removal of infective foci in the upper respiratory tract and of diseased teeth in healed cases of subacute bacterial endocarditis. with the administration of penicillin before and after such procedures. Davis[35] has called attention to the fact that the eradication of foci of infection in the pharynx is not accomplished merely by removal of the tonsils. Adenoids and lymphoid tissue on the posterior pharyngeal wall and particularly the lingual tonsils are frequent undetected foci of infection. Baehr and Gerber[3] have proposed the administration of penicillin immediately prior to procedures such as cystoscopy and removal of teeth in patients with rheumatic heart disease and in arrested cases of bacterial endocarditis. They further suggested that penicillin should be continued for 12 to 48 hours following such procedures.

In our series of 57 cases of subacute baterial endocarditis in which an operative, diagnostic, or other traumatizing procedure was discernible the blood culture was positive in 50 cases (tables 4, 5 and 6). An organism considered usually susceptible to penicillin was found in 42 cases; in 6 of the remaining 8, enterococci were found. In the 20 cases of acute bacterial endocarditis (table 7) there were 5 with organisms considered usually not susceptible to penicillin. A negative culture was obtained in 3 cases. In 11 cases, however, the bacterial invader was susceptible to penicillin. Altogether, then, in the 77 cases of subacute and acute bacterial endocarditis following operations, diagnostic procedures and other conditions mentioned, organisms susceptible to penicillin were cultured in 53 cases. Since the bacterial invader in most cases of subacute bacterial endocarditis is usually susceptible to penicillin, this agent should obviate the development of the disease in some cases. We believe that a patient with a history of rheumatic fever, a loud systolic murmur, or other signs or symptoms of heart disease should receive penicillin before and after operations and in some instrumental diagnostic procedures.

Although it seems quite likely that a considerable number of cases of transitory bacteremia may be prevented, one can only speculate as to how many cases of infectious endocarditis may be avoided with the prophylactic administration of penicillin. The rationale for proper prophylactic dosage is dependent on the need of each individual case. Penicillin products are now available so that a proper choice will give high blood levels for a relatively short or prolonged period of time. Dosage considered proper at this time may be considered obsolete in the near future because of the considerable experimental and research work being done with this and other antibiotics. Patients who have had rheumatic fever, with or without evidence of cardiac disease, should receive 300,000 units (children should be given 150,000 units) intramuscularly 20 minutes before a dental operation. One dose of 300,000 units should be given within 30 minutes following dental operation; an additional intramuscular injection of 300,000 units should be given 12 to 18 hours thereafter.

Although this method was devised especially for persons with probable rheumatic or other valvular disease who were to undergo dental operations and minor surgical procedures, the same system of dosage is applicable for any person having evidence of heart disease in contemplation of instrumental diagnostic procedures that may traumatize a mucosal surface.

In major operations not complicated by a focus of infection a prophylactic injection of 300,000 units should be administered on the operating table immediately prior to operation. When major surgery is contemplated in the presence of a known infection, more prolonged prophylactic treatment with penicillin[36] or more suitable antibiotic should be employed whenever possible, in the hope of avoiding a bacteremia and its possible complications. The postoperative schedule previously mentioned should be adhered to in the absence of evidence of infection following operation. However, manifestations of postoperative infection indicate an immediate increase in dosage of penicillin, depending on the susceptibility of the organism to penicillin and the severity of the infection.

Because of the occasional occurrence of moderately prolonged bacteremia following cystoscopy, penicillin should be continued for 2 to 4 days and for a longer period should there be evidence of infection.

Although nasopharyngitis, tonsillitis, bronchitis, and "colds" are among the commonest conditions preceding subacute bacterial endocarditis, they have not been included in this study. We believe, however, that a patient with symptoms or signs of heart disease should receive penicillin prophylaxis in the course of a severe upper respiratory infection.

In the hope of avoiding a bacteremia and the possible development of infectious endocarditis, serious consideration should also be given to the practicability of routine administration of penicillin prophylaxis to every older patient in contemplation of surgery, those who give no evidence of heart disease as well as those who have obvious heart disease. Giving penicillin prophylactically to operative patients in the older segment of the over-all population in the hope of preventing the very small number of cases in which infectious endocarditis develops may not seem wise. Other debatable reasons deal with infrequent serious penicillin reactions, such as exfoliative dermatitis, and the small number of patients who develop a penicillin-fast reaction. At the same time it should be stated that severe allergic reactions to penicillin occur in less than 0.2 per cent of cases, as reported by Mendell and Prose,[37] numbering 6 in 5,000 patients treated with penicillin, and 1 case of exfoliative dermatitis in 2,000 patients on prolonged penicillin therapy, as reported by Nolan and Pedigo.[38] "One of the most remarkable qualities of penicillin is its safety of administration; and the minimum of unpleasant and infrequent dangerous reactions have become an accepted fact."

In furtherance of the suggestion that penicillin should be administered prophylactically to all older individuals who contemplate surgery, whether they do or do not have heart disease, an evaluation of the frequency of postoperative bacteremia is in order. We can find no recent or well controlled studies on the frequency of postoperative bacteremias other than those concerned with dental extractions and tonsillectomies in which there is a high incidence of transient postoperative bacteremia. In evaluating the occurrence of bacteremias observed in the medical and surgical departments of Mount Sinai Hospital, figures reported by Goldman and Schwartzman[39] in 1935 indicate that there were approximately 840 cases of proved bacteremia in the Mount Sinai Hospital in a period of $5\frac{1}{2}$ years. It is our belief (and a study in this direction has already been projected) that the occurrence of bacteremia following many other types of major surgical procedures may approach the frequency of bacteremia following the extraction of teeth and the removal of tonsils.

It is felt that there will be acceptance of the idea of penicillin prophylaxis for older individuals contemplating surgery who have heart disease of any type whatever. However, in view of the fact as noted by White[9] and others that many individuals have valvular damage and yet give little or no evidence of this on physical examination or by virtue of a suggestive history, a further stimulus to the routine administration of antibiotics to all older people requiring surgery (even though they do not give evidence of heart disease) is afforded by our findings in 406 consecutive autopsies in patients 50 years old and older, which indicate that 69 patients with gross anatomic evidence of valvular damage gave no clinical evidence of this on careful examination during life. In other words, 17 per cent of 406 persons had anatomic evidence of valvular damage but showed no evidence of this on cardiac examination antemortem. One patient in 6 past the age of 50 who has the usual heart examination prior to operation may be adjudged as having no heart disease and yet having sufficient valvular damage so that, should he suffer a postoperative bacteremia, he may develop bacterial endocarditis.

It is suggested that in the presence of an infective focus known preoperatively, or before instrumental diagnostic procedures when an organism may be cultured, an antibiotic more suitable than penicillin may be used alone or in conjunction with penicillin.

SUMMARY

In 406 consecutive autopsies in patients 50 years old or more, 342 (84.2 per cent) disclosed evidence of heart disease. Rheumatic lesions were present in 176 (51.4 per cent), arteriosclerotic in 133 (39.0 per cent), and a miscellaneous group of lesions in 33 (9.6 per cent).

There was evidence of gross valvular damage in 234 hearts, that is, in more than half the cases. The valvular lesions were rheumatic in 176 instances (75 per cent) and arteriosclerotic in 47 (20 per cent).

Twenty cases of subacute and 11 cases of acute bacterial endocarditis are described in patients 50 years old or more. Rheumatic, arteriosclerotic, syphilitic, and congenital heart disease were present in that order of frequency.

It has been indicated that any type of heart disease, particularly valvular, which produces damage of endocardial tissues may predispose to subacute or acute bacterial endocarditis during postoperative bacteremia.

Fifty-seven cases of subacute and 20 cases of acute bacterial endocarditis following operative, diagnostic instrumental, and manipulative procedures are described in patients ranging from 14 to 86 years of age.

A vast variety of manipulations and diseases which injure mucous membrane and facilitate the entrance of bacteria into the blood stream may lead to bacterial endocarditis in the presence of valvular disease. These include infections and operations in the ear, nose, and throat; tooth extraction; bronchoscopy; genitourinary infections, operations, and diagnostic procedures; infections of the pelvis, skin, gastrointestinal tract, and bone; thrombophlebitis; pneumonia, and the exanthemata. Such minor conditions as a cold, prostatic massage, enteritis, and toe infection have preceded bacterial endocarditis.

In 17 per cent of the patients past the age of 50 examination of the heart was negative clinically although valvular involvement was found postmortem.

Since valvular lesions are very common in persons over 50, although often not obvious clinically, penicillin prophylaxis prior to operation and diagnostic or manipulative procedures may be instituted to obviate the development of bacteremia and bacterial endocarditis. The dosage and method are described.

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(*Continued on page 724*)

TESTS OF PULMONARY FUNCTION*

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CONSIDERABLE progress has been made in recent years in the testing of pulmonary function. Many tests have been developed, and some of these have provided answers to questions arising out of alteration in pulmonary function in the presence of acute and chronic lung disease. They have also provided the basis for more intelligent applications of collapse therapy and resection in the management of pulmonary conditions.

A survey of the recent advances in tests of lung function should be of general interest because they indicate the problems arising in the course of acute and chronic lung disease and how some of these problems can be met.

In order to appreciate pulmonary dysfunction an understanding of the dynamics of lung function is essential. The lung's major function is to provide oxygen for transport to the tissues and to eliminate carbon dioxide. The lung serves as a depot and the circulatory system provides the transportation. They are closely interrelated.

In health there is very exact coördination between the ventilation and circulation. For example, during exercise the cardiac output may increase 5- to 7-fold and ventilation responds correspondingly to oxygenate the increased amount of blood flowing through the lungs and maintain a constant saturation of the arterial blood.

Pulmonary function may be divided for convenience into ventilatory and respiratory components. The ventilatory function is mechanical and the symptom of impairment is dyspnea. The respiratory component is physicochemical, and the related symptoms would be associated with anoxic anoxia. This latter function would be influenced by factors interfering with the gaseous exchange across the alveolar capillary membrane.

Abnormal pulmonary function has a variety of causes and may manifest itself in several ways. The 4 main categories of pulmonary insufficiency and some of the related causes are as follows:

1. Ventilatory insufficiency or failure of breathing mechanics to provide the required pulmonary ventilation without dyspnea. Some factors leading to this condition would be deformities of the thoracic cage and spine, paralysis and imbalance of respiratory muscles, obstruction of the main air passages, increased metabolic requirements, and air or fluid in the chest.
2. Respiratory insufficiency or failure to maintain normal gas exchange between the alveoli and the pulmonary capillaries. Some factors influencing this function would be edema or fibrosis of the alveolar capillary membrane and poor alveolar mixing of gases.
3. Combined ventilo-respiratory insufficiency. Pneumonic consolidation, tumors and fibrosis interfere with ventilation and also with normal gaseous exchange across the alveolar capillary membrane.
4. Combined cardiopulmonary insufficiency of various types. Congestive heart failure interferes with ventilation and gaseous exchange and causes an increased rate of oxygen removal from the blood at the tissue level because of the slowing of the circulation. Intracardiac and arteriovenous shunts adversely influence gaseous exchange as well as the general circulation.

PULMONARY FUNCTION TESTS

For over 100 years pulmonary function tests were limited to attempts to estimate the volume of air that could be forcibly expired from the lungs, a technic which corresponds to the vital capacity as we know it. However, during the past 20 years numerous tests of the various aspects of pulmonary function have been developed. No attempt will be made to cover all of the various reported tests but to discuss only those recommended by the American Trudeau Society. This Society initiated studies in 1943 to evaluate the relative importance of tests of pulmonary function. In 1945 Dr. Andre Cournand[1] prepared a report for them in which he listed the more significant tests of pulmonary function and their spheres of greatest usefulness.

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TEST NO. 1

MEASUREMENT OF THE MAXIMUM BREATHING CAPACITY

Maximum breathing capacity, also referred to as maximum ventilatory volume, is a measure of the volume of air that can be ventilated in a unit time. It is influenced by the state of the thoracic cage, the tracheobronchial tree and the elasticity of the lung.

Four methods have been described for its determination: collecting expired gas in a Douglas bag for a measured time period following exercise; rebreathing carbon dioxide and measuring the expired gas in terms of time; measurements of a single deep and rapid breath in relation to time; and spirography as first described by Hermannson and later modified by Cournand.[2] This last method consists of graphically recording the maximum ventilatory effort by spirography for a given period of time and translating this recorded effort into liters per minute of breathing capacity. Cournand[2] in his earlier work regarded 150 liters per minute as normal in males and 100 liters per minute as normal for females. Subsequently, he[3] and his associates developed a regression formula for the predicted normals in males and females.

The breathing reserve is a function of the maximum breathing capacity and represents the difference between it and the minute volume respiration. It is usually given in per cent which may be determined as follows:

$$\frac{\text{Maximum breathing capacity} - \text{Minute volume respiration}}{\text{Maximum breathing capacity}} \times 100 = \text{Breathing reserve in per cent}$$

At rest, the breathing reserve would normally be 95 per cent or more of the maximum breathing capacity. The maximum breathing capacity is an index of the individual's ability to ventilate under stress. It is one of the most widely used and valuable tests of pulmonary function. In certain conditions the maximum breathing capacity may be misleading in terms of effective pulmonary function. For instance, in cases of fibrothorax the involved lung may ventilate without making a comparable contribution to oxygenation of the blood. This may be due either to a decrease in circulation to the involved lung or changes in the alveolar capillary membrane. In this situation a study of the ventilation and oxygen consumption of each lung gives the true picture.

On the chronic pulmonary disease service at Freedmen's Hospital we have found that, when the maximum breathing capacity is less than 35 liters per minute in a male and less than 30 liters per minute in a female, the patient is a poor candidate for major surgery. In a previous study we indicated that a breathing reserve at rest of 74 per cent or better was found in patients who tolerated major thoracic surgery well[4, 5]

TEST NO. 2

BRONCHOSPIROMETRY

Jacobeus introduced a double-barreled bronchoscope in 1932 designed to measure function for each lung separately and simultaneously. Gebauer and Zavoid, working independently, improved upon this instrument by developing a double-barreled soft rubber catheter. Ventilation, oxygen consumption, and vital capacity may be measured for each lung by this technic. This test is especially useful when resection is planned. For instance, it may be found in some cases that the lung to be removed is contributing very little to the total function. Hence its removal will not affect the total function of the individual to any great extent.

The oxygen consumption of the lung is the important element in the evaluation of the effective part that the particular lung plays in the total function. Ventilation may be a useless function if there is not a comparable degree of oxygen consumption. The decrease in oxygen consumption may be due to a decrease in circulation to the involved lung or to changes in its alveolar capillary membrane or to a combination of these factors.

Bronchospirometry is also useful in predicting the reduction in function that may occur following collapse therapy or resection.

TEST NO. 3

MEASUREMENT OF TOTAL LUNG VOLUME INCLUDING RESIDUAL AIR

In order to determine total lung volume or total capacity, it is necessary to determine residual air. Residual air may be defined as that volume of air remaining in the lungs following forced expiration. Functional residual air is that volume of air remaining in the lungs at the end of a normal expiration. The subdivisions of the lungs are represented schematically in chart 1.

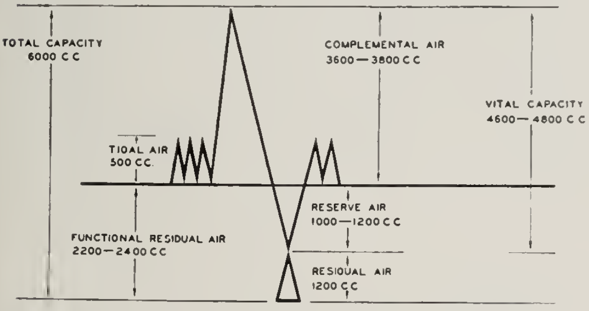
TOTAL CAPACITY 6000 C C
COMPLEMENTAL AIR 3600—3800 C C
VITAL CAPACITY 4600—4800 C C
TIDAL AIR 500 CC.
RESERVE AIR 1000—1200 C C
FUNCTIONAL RESIDUAL AIR 2200—2400 C C
RESIDUAL AIR 1200 C C

CHART 1. Schematic representation of the subdivisions of the lung and their approximate volumes.

The vital capacity, complemental air, and reserve air can be determined spirographically. The residual air can be determined by special technics described by Christie, Cournand et al,[6,7,8] among others. Having determined the residual air and the reserve air, the functional residual air equals the residual air plus reserve air. The total capacity equals the vital capacity plus the residual air or the complemental air plus the functional residual air.

Normally the total capacity of the lungs would be about 6 liters of air depending on the size, sex and age of the individual. The residual air measures about 18 to 20 per cent of the total capacity. However, in pulmonary emphysema the residual air may range from 45 to 70 per cent of the total capacity. This is commonly expressed as a ratio, e.g.

$$\frac{\mathrm{RA}}{\mathrm{TC}} = 45 \text{ per cent}$$

Residual air determination is especially useful in determining the existence of emphysema and the degree present. The residual air increases with the severity of the emphysema.

Following pneumonectomy and lobectomy, the remaining lung or lobes may become distended in order to fill the thoracic cage. If the distention is marked and is not corrected over a period of years, the lung tissue may exhibit irreversible changes of emphysema.

Correction may be carried out following pneumonectomy by introducing oil, air, lucite balls or plastics into the residual space. Thoracoplasty has also been used to decrease or abolish the space. Following lobectomy, thoracoplasty and phrenemphraxis have been used either separately or together to decrease the volume of the thoracic cage.

Residual air determinations are of considerable value in determining the degree of distention and whether it is present at all following resection. Where distention is present, the ratio of residual air to total capacity $\left(\frac{\mathrm{RA}}{\mathrm{TC}}\right)$ does not usually exceed 45 per cent but exceeds normal values. When higher values are obtained, emphysema is likely to be present.

TEST NO. 4

MEASUREMENT OF ARTERIAL BLOOD SATURATION AT REST AND FOLLOWING EXERCISE

Arterial blood is obtained from the brachial or femoral artery at rest. The oxygen content and capacity are obtained and the saturation calculated in per cent.

$$\frac{O^2\text{ Content}}{O^2\text{ Capacity}} \times 100 = \text{Saturation in per cent}$$

The arterial saturation normally ranges from 96 to 98 per cent. This procedure is repeated immediately following exercise. In the normal healthy individual there is no significant change in the saturation. Individuals with pulmonary emphysema, fibrosis, or other manifestations of ventilatory or circulatory impairment are apt to show varying degrees of unsaturation following exercise. This may be taken as an indication that during the course of or following extensive chest surgery these individuals may experience difficulty in maintaining adequate oxygenation of the arterial blood.

TEST NO. 5

MEASUREMENT OF VENTILATION AND RATE OF OXYGEN CONSUMPTION AT REST AND FOLLOWING EXERCISE

In this test the subject's minute volume respiration is determined by collection of the expired air in a Tissot gasometer for a definite time period. The subject then exercises for 2 minutes and the gas is collected during exercise and after a 5-minute period of recovery.

Analyses of room air and expired gas give the basis for calculating the rate of oxygen consumption at rest, during exercise, and in the recovery period. If the subject's circulatory and ventilatory systems are functioning adequately, there should be a return to approximately the resting values for ventilation and oxygen consumption during the last minute of the recovery period.

Abnormal findings in this test may indicate either ventilatory or circulatory impairment or a combination of these.

TEST NO. 6

FLUOROSCOPIC OBSERVATION OF THE MOVEMENTS OF THE THORACIC CAGE AND DIAPHRAGMS

Much basic information can be obtained by observation of the thoracic dynamics by means of the fluoroscope. The excursion of the diaphragms between deep inspiration and forced expiration, movements of the ribs, aeration of lobes, state of the pleura, and muscular coördination are some of the important observations that can be made. Important conclusions may be drawn concerning pulmonary function on the basis of a careful fluoroscopy.

A modified test of pulmonary function has been employed at the Tuberculosis Annex of Freedmen's Hospital since 1942. This test is performed routinely prior to major collapse therapy in cases of tuberculosis and prior to resections for tuberculous and non-tuberculous pulmonary disease. The methods used and the results obtained have been reported elsewhere.[4,5]

The more widespread use of tests of pulmonary function in recent years has increased the margin of safety in surgery of the chest and has permitted more intelligent planning of collapse therapy and resection in the treatment of chronic pulmonary disease. In addition, these tests have provided us with more exact knowledge of the alterations in physiology that occur in acute and chronic pulmonary disease, and by the same token have facilitated their management by the thoracic specialist and the general practitioner.

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(*Continued on page 724*)

BLOOD COAGULATION AND METHODS OF THERAPEUTIC CONTROL*

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INTEREST in the mechanism of blood coagulation and its variabilities has multiplied within recent years. The discovery of new factors causing a revision of our knowledge of such mechanism, and the introduction of agents by which we may modify the coagulability of blood has centered the attention of men in all fields of medicine on this subject. Seegers[1] has estimated that over 10,000 papers have been published on the subject of blood-clotting. He states further, that "in a large proportion of the papers, the conclusions are pushed beyond the just limits of the data." This review will omit many theories which have been proven inadequate and replaced by more plausible ones, and will attempt to simplify a nomenclature which is often confusing.

Theory of Coagulation

In order to discuss the various modifications which have been recently proposed, we should first detail the time-honored theory of Morawitz,[2] who in 1905 proposed a simple scheme to express the mechanism of blood coagulation. This explains coagulation as occurring in two stages:

Prothrombin + calcium + thromboplastin → thrombin
Thrombin + fibrinogen → fibrin

An important change in this mechanism has been postulated recently by a number of investigators who believe that the speed of the formation of thrombin from prothrombin is supplied by so-called prothrombin accelerators. Owren[3] of Norway labeled this substance factor V, while Ware, Guest and Seegers[4] have called it plasma accelerator (AC) globulin. The latter group believe that this substance is formed in the body and that in liver disease a deficiency of it may be present. Whether these substances are the same remains to be seen. Fantl and Nance[5] in Australia, and Quick[6] in this country have described similar substances which apparently also fit into this group.

Ware and Seegers[7] suggest that the plasma AC globulin exists as an inactive substance which becomes activated by the initial quantity of thrombin formed in the first stage of the coagulation reaction to a serum AC globulin. They would modify the coagulation scheme as follows:

Prothrombin + thromboplastin + calcium → thrombin
Thrombin + plasma AC globulin → serum AC globulin
Prothrombin + thromboplastin + calcium + serum AC globulin → thrombin
Thrombin + fibrinogen → fibrin.

Several other factors are mentioned in the literature as serum prothrombin accelerators. Thus, Alexander and de Vries[8] of Boston have labeled their substance "specific prothrombin conversion accelerator," and Owren[3] has postulated factor VI.

Quick[9] and Ware et al[10] have brought forth some interesting data on the platelets, which change our concept that the contribution of the platelets is primarily that of supplying thromboplastin. Seegers[1] believes that actually they furnish little thromboplastic activity and states

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* Presented at the Fifth Intensive Postgraduate Course, George Washington University School of Medicine, March 24, 1950.

"the activity which they supply is more nearly like that supplied by AC globulin." Quick[9] believes that the breakdown of platelets supplies an enzyme, thromboplastinogenase, which converts the precursor of thromboplastin, thromboplastinogen, to an active substance.

Frommeyer and Epstein[11] have postulated the following hypothesis, then, to incorporate this present knowledge:

Platelet enzyme + thromboplastinogen → thromboplastin
Thromboplastin + prothrombin + calcium → thrombin
Plasma AC globulin + thrombin → serum AC globulin
Prothrombin + thromboplastin + calcium + serum AC globulin → thrombin
Thrombin + fibrinogen → fibrin

Mention should likewise be made not only of the factors which cause blood clotting but also of those factors which cause its lysis. It is believed[12] that there is present in the plasma a substance known as profibrinolysin, which becomes activated to fibrinolysin, an active substance which can dissolve a fibrin clot. Although little is known about it as yet, such activation apparently occurs by means of an enzyme, fibrinokinase. Certain bacterial enzymes, namely, staphylokinase and streptokinase, may also activate profibrinolysin, and it is believed that this explains the phenomenon of bacterial lysis of clots.

Intravascular Clotting

In recent reviews on the subject Moolten et al[13] and Riggs[14] have neatly summarized the process which apparently occurs intravascularly in the formation of a clot. This process begins at the site of some endothelial damage with the precipitation and adhesion of platelets to this point. A homogeneous "white thrombus" thus occurs. Apparently with the lysis of some of these platelets the clotting mechanism which has been described comes into play with the liberation of the platelet enzyme or substance. As fibrin strands are formed at the conclusion of this process and with the partial or complete occlusion of the vessel by the white thrombus, other elements are trapped and a clot containing leukocytes and erythrocytes, the red thrombus, is now formed.

The consensus seems to be that there are three factors underlying venous clotting. These are: (1) some change in the intravascular clotting factor, which might involve increased coagulability, (2) stasis—it has been adequately proved that slowing of the blood stream in the blood vessel is an important factor, not only in the production of the clot, but in its propagation, and (3) tissue or vascular injury. There seems to be no question that such injury may be of very minor and indirect nature, and may even follow rubbing together of the endothelial walls of a vein over a period of time. Moolten[13] states, "Although histologic changes in endothelium may not be demonstrable, the possibility cannot be rejected that a physiochemical change is the basic local occurrence which causes platelets to adhere."

Anticoagulant Agents

It is not the purpose of this review to take sides in the discussion as to the preference of one anticoagulant over another or indeed in the brisk debate in the literature over the advisability of choosing between venous ligation or anticoagulants in the prevention of venous thrombosis and pulmonary emboli. I shall review the agents heparin and dicumarol, as they are being currently used, and mention the advantages, disadvantages and contraindications to their use.

Obviously the purpose of anticoagulant treatment in the prevention of intravascular clotting is to produce a partial inhibition of the normal clotting mechanism without causing the blood to become entirely incapable of clot formation.

Heparin was discovered by McLean[15] in 1916 and shortly thereafter was extracted and purified by Howell.[16] It is a naturally occurring anticoagulant which may be partially responsible for the fluidity of the blood in the vessels. The primary action of heparin is the prevention of formation of thrombin from prothrombin. It is not known whether heparin forms a complex with prothrombin as Howell believed, or whether it combines with thromboplastin to prevent the activation of prothrombin to thrombin. Probably secondarily, heparin may act as an antithrombin in the later stages of the coagulation reaction.

TABLE 1

Modes of Administration of Heparin, with Advantages and Disadvantages

MODE OF ADMINISTRATION	DOSAGE	ADVANTAGES	DISADVANTAGES
Continuous intravenous	0.2 mg./c.c. 14 mg./hr.	Steady supply. Most constant concentration in blood.	Prevents ambulation. Immobilizes extremity. Requires constant attention. Requires frequent clotting times.
Intermittent intravenous	50–100 mg. q. 4–6 hrs.	Clotting times need be infrequently done.	Inconstant coagulation effect.
Intermittent intramuscular	10% solution 100 mg. q. 6–8 hrs.	May be given by nurses.	Somewhat inconstant coagulation effect, but probably best method at present.
Repository (Pitkin's menstruum, a mixture of gelatin and dextrose with or without vasoconstrictors, etc.)	200–400 mg. q. 12–48 hrs.	Infrequent injection. Prolonged action.	Often painful at injection site. Unpredictable[18, 14] in duration and effect on coagulation.
Regional	100 mg. to 250 c.c. saline	Local reduction of clotting time in region of operated artery, without generalized change.	Some systemic effect.[18]

Since heparin is apparently inactivated in the gastrointestinal tract, it must be given parenterally. With a single intravenous dose heparin causes a rapid rise in the clotting time, and perhaps because of an enzyme heparinase,[17] its effects disappear rapidly.

Heparin has been given in a variety of ways (table 1), and its major disadvantages have been its expense and the fact that it must be given parenterally. DeTakats[18] states that he prefers the intermittent intramuscular method of administration, particularly with a previously given primary dose of intravenous heparin. "For anticoagulant therapy not exceeding 6 to 8 days, it is an ideal form of treatment. . . ." A novel method of giving heparin has received attention recently by the surgeons. By this method one attempts to cause a reduced clotting time locally where it might be desirable in artery surgery or injury, without reducing the coagulation time in other parts of the body, and thus minimizing the dangers of hemorrhage. The latter complication is indeed the only serious drawback to its use, as toxic effects of purified heparin have not been reported.

Following the intensive research of Link and his collaborators, in 1940, the active principle causing sweet clover disease in animals was found, and was identified as the substance now called dicumarol. It quickly came into use as a clinical anticoagulant, particularly since it can be given by mouth and is relatively inexpensive. Whereas heparin acts by preventing the activation of prothrombin, dicumarol prevents the formation of this substance by the liver, thereby reducing the prothrombin level. The exact mechanism of this action is as yet unexplained. It has been suggested[19] that dicumarol acts by competing with vitamin K. Apparently no specific damage to the liver can be demonstrated following the use of dicumarol, and it has been postulated that a specific histochemical change[14] may be the explanatory lesion.

It is important in the clinical use of dicumarol to realize that it does not produce a demonstrable change in the prothrombin time for 24 hours or so, and that a maximum effect is not achieved for 48 to 72 hours. Furthermore, its action is cumulative, and, when it is discontinued, the prothrombin level does not return to normal for about 6 to 10 days. The usual practice is to begin treatment with 300 mg. after determining that the patient's prothrombin is normal prior to therapy. Thereafter one orders the daily dose after observing the prothrombin level for that day. It is desirable to keep the prothrombin concentration, or percentage of normal, approximately between 20 and 30 per cent. In a recent review, DeTakats[18] was critical of dicumarol and made the statement that "from the standpoint of the surgeon dicumarol is slow in action and slowly eliminated, most often not active enough and once in a while too active for safety." However, this has not been the experience of the Mayo group,[20] who have found that on the one hand there is little danger of thrombosis if the prothrombin time is less than 30 per cent of normal, and on the other hand that if the prothrombin time is greater than 10 per cent of normal there is little chance of hemorrhage.

Before using dicumarol it is important that the physician know the prothrombin determination performed in the respective laboratory and its dependability. There is much variation from laboratory to laboratory, and it is better to risk the danger of thrombosis than to use a poorly controlled anticoagulant. The method used in the majority of clinics is the 1-stage prothrombin test or some modification of it. In this test, thromboplastin and calcium are supplied in optimal amounts in an effort to make the prothrombin concentration the only variable. In order to control the differences which will be present with different batches of thromboplastin a curve should be prepared for normal plasma in various dilutions with normal saline or preferably prothrombin-free plasma, the prothrombin time being plotted against prothrombin concentration. From this curve, one can determine the prothrombin per cent of an unknown by reading directly. It is obvious that there is not a direct relationship between the unknown plasma and normal undiluted plasma. For example, if the prothrombin time of the normal plasma is 16, and that of the unknown is 32, the prothrombin percentage of normal is not 50 per cent, as is often supposed. This is due to the fact that the prothrombin time increases slowly until the prothrombin concentration approaches 30 per cent, whereupon the prothrombin time sharply increases with each drop in prothrombin concentration.

There has been much discussion as to whether the 1-stage method is adequate for dicumarol control. Advocates of the 2-stage method believe it is a more accurate method of measuring prothrombin concentration and that it is not too intricate to use. However, most investigators believe the 1-stage method properly done will provide an accurate guide for the use of this anticoagulant.

Anticoagulants have been important agents in thrombosis prevention, but there are certain contraindications to their use. They are: (1) hemorrhagic diatheses, (2) presence of open wounds, (3) presence of peptic ulcer, (4) sequel of central nervous system surgery or accident, (5) subacute bacterial endocarditis, and (6) hepatic or renal disease.

HEMORRHAGE

Despite careful control, this onset of bleeding occasionally complicates the use of anticoagulants. This serious event has not until recently received enough attention or was dismissed with the statement that bleeding could be easily controlled by the use of blood or vitamin K. Although this is generally true, I have seen several patients whose bleeding did not cease nor did the prothrombin time return to normal for longer than a week despite vigorous therapy which included the use of fresh blood, plasma, and large doses of vitamin K. Indeed there have been several articles in which it has been shown that the water-soluble vitamin K preparations have little antagonistic effect against dicumarol, whereas vitamin K_1 and vitamin K_1 oxide were very effective. Jones et al[21] found that vitamin K_1 oxide was strikingly superior to both Menadione and Synkavite in controlling bleeding from dicumarol-induced hypoprothrombinemia.

The use of protamine sulfate, given in the dose of about 1 to 3 milligrams per kilogram of body weight intravenously should promptly control bleeding which complicates the use of heparin.[18] It may be necessary to repeat this, particularly if a long-acting heparin has been used.

Other Anticoagulants

A new anticoagulant developed in Switzerland and used in Czechoslovakia and England is now being used in this country. Della Santa[22] in a recent report stated that this synthetic anticoagulant (ethylic ester of 4,4′ dioxy-cumarinyl-acetic acid) has a shorter period before it reaches maximum effect than dicumarol and its effects disappear in a much shorter time after it is discontinued. Paritol and other new anticoagulants[23] are now under investigation, and it is expected that they will be reported upon in the near future.

In conclusion, much progress has been made in recent years, not only in the physiology and patho-physiology of blood-clotting, but in efforts to mold the mechansim to fit our clinical needs. The requirements for the ideal anticoagulant, namely, an oral preparation, inexpensive, quick to act when administered, quick to subside when discontinued, with a wide margin of safety, have not yet been fulfilled. However, the materials being currently used are efficient and, if carefully controlled, are valuable therapeutic agents.

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SYMPTOMATIC RELIEF OF LOW BACK PAIN

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WHEN a patient consults his physician for backache he is primarily interested in relief. The "whys," "wherefores" and "how soons" at the initial visit, though of paramount importance, are secondary. Granted that the etiologic factor of low back pain must be eliminated or treated, the means for doing so are made easier if the patient is comfortable. Any method which accomplishes this hastens recovery, and a more rapid and complete diagnosis is facilitated. Muscle spasm and/or splinting plays a major role in the production of pain. The diminution or relief for this unpleasant condition is mandatory in the acute back. A vicious cycle is initiated by the etiologic factor (irritative or reflex) which causes pain. This produces splinting which, in turn, increases the pain and this produces more splinting, etc., etc. It is easier to break up this cycle at the point of spasm or in stretch-resisting tissues than at the inception of the cycle, wherever it may be, or the end-result of spasm.

In this series of cases d-Tubocurarine chloride was used. Its action on the myoneural junction is immediate and the spasm is markedly diminished. A very brief review of its action may not be amiss. The action of curare is peripheral, a block of nerve impulses being made at the myoneural junction of skeletal muscle. The muscle itself does not lose its capacity to contract if directly stimulated. The exact mechanism is not fully understood; however, curare does not prevent the formation of acetylcholine at the motor nerve ends. This substance is supposedly associated with neural transmission, but curare does antagonize completely the action of small amounts of acetylcholine on muscle responses. The exact utilization and end-products of this substance are uncertain. About one half is excreted by the kidneys and the remaining one half is rapidly destroyed in the body, some by the liver. The method of elimination, the true sequence of its action, and the end-products of this metabolism are not known. A histamine-like action of Tubocurarine has also been described which may occasionally lead to some cardiovascular toxicity. Muscle relaxation and loss of peripheral tone, coupled with some direct action on the blood vessels and its histamine-like activity results in hypotonia and sometimes causes a rather rapid fall of blood pressure. Respiratory failure may result due to paralysis of the diaphragm and the intercostal muscles, but this occurs only long after necessary relaxation has been obtained in the back muscles.

Some caution in its administration must be used. Prostigmine methylsulfate is a good antagonistic agent and should always be available for overdosage. Free airway, artificial respiration, and methods of combating shock are the best treatment for the untoward results of curare. It must also be remembered that the action of curare is cumulative, hence repeated does should be carefully gauged. Curare should be administered with caution to any patient suffering from respiratory deficiency, pulmonary disorder, renal dysfunction, or liver disease. It is contraindicated to patients suffering from myasthenia gravis. The action of d-Tubocurarine chloride is short, and repeated doses, or some agent to prolong its effect, would be desirable to get the maximum benefits. Other agents to increase the effect of curare action can also be used. A preparation of d-Tubocurarine in wax and oil* is now on the market and has been used with some success in certain cases. An augmented type of action in which Myanesin (Tolserol*) is used in conjunction with d-Tubocurarine chloride has also been employed. Reports of the two latter methods are now in preparation.

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* D-Tubocurarine Chloride in Peanut Oil with Myricin, produced by E. R. Squibb and Sons.

Treatment by single or repeated doses of d-Tubocurarine chloride, supplemented by ordinary methods of relief of backache, such as heat, rest, massage, physiotherapy, strapping, traction, etc., together with salicylates and sedatives, were used in over 100 cases with good results. Six typical cases with various etiologic factors are presented here in abstract.

Case 1. Mrs. R. E., a housewife aged 25, gave a history of recurrent attacks of backache every 3 to 4 months with no apparent relief. The attacks lasted 6 to 8 days and radiated down both thighs. The pain was shooting in character, and at the time of the attacks the patient was unable to sit or walk. The patient, a thin girl, in obvious pain, showed tilting of the pelvis. There was marked splinting of the erector spinae and the sacrococcygeal muscles of the right side, with pain in the sciatic notch and in the right buttock. X-ray films were essentially normal. Otherwise the examination was not remarkable. She was given 2.5 c.c. of d-Tubocurarine chloride, put at absolute bed rest and given phenobarbital in doses of 0.016 Gm. ($\frac{1}{4}$ grain). She was much improved the following day and was seen at the office 3 days subsequently, at which time only a residual of spasm was noted. It was noted at this time that she had a mild weak foot, and corrective appliances were used. Four days later she was entirely well.

Case 2. Mrs. R. E. M., a saleswoman aged 26, complained of "backaches off and on for 2 years" and acute backache of 2 days' duration with no particular radiation. Coughing and laughing accentuated this pain. She had lost 80 pounds on a diet 2 years before but had regained 40 pounds. Examination showed a markedly obese female of 190 pounds with very poor posture. She exhibited great difficulty in undressing. All motions were guarded and straight leg raising was limited on both sides. Jarring test was positive with marked spasm of the erector spinae muscles bilaterally. There was marked tenderness over L-4 and L-5 and tenderness along the right and left buttocks which seemed to follow an anatomic distribution to the middle of the gluteal fold. X-ray films were essentially negative for any bone pathology. The patient was hospitalized at Garfield Memorial Hospital where paravertebral blocks were done on both sides, the patient put at bed rest, and traction applied. She reported some relief, but 2 days subsequently, although the pain was not as severe, spasm was still present. At this time she was given d-Tubocurarine chloride, 4.1 c.c. intramuscularly, with almost immediate relief. She left the hospital 3 days later without a pain. A lumbosacral corset was fitted, corrective exercises were prescribed, and she was placed on a reducing diet. She was entirely free from pain for 6 weeks, at the end of which time she stated that while sweeping and stooping over she felt a sudden pain in the back "where it used to be." She was again given 4 c.c. of d-Tubocurarine chloride intramuscularly and put on bed rest. Two days later she was helping her husband at his place of business. Subsequent checkups at 3-month intervals revealed a loss of 12 pounds of weight at the first visit, 10 pounds at the second visit, and 10 pounds at the third visit, a total of 32 pounds. There has been no recurrence of backache to date.

Case 3. W. E. D., a man aged 27, while playing tennis and attempting to get a low shot missed the ball and felt a "catch" in his back with radiating pain down both thighs. It was impossible for him to rise, and he was taken by ambulance to George Washington University Hospital. X-ray films showed no evidence of bone pathology. Straight leg raising was accomplished only to 15 degrees from the horizontal. Naffziger's and Lasègue's signs were positive bilaterally. He was given 3.5 c.c. of d-Tubocurarine chloride intramuscularly and 0.016 Gm. ($\frac{1}{4}$ grain) of morphine. He passed a comfortable night and the next day was given d-Tubocurarine chloride in 3.5 c.c. doses at 8-hour intervals. Codeine in doses of 0.03 Gm. ($\frac{1}{2}$ grain) was prescribed as needed for pain. He left the hospital 5 days later with only moderate tenderness in the low back, and 2 weeks later had full, unrestricted motion of his spine with no pain or radiation. He was followed up at periods of 3 months, and at the present time is working as an investigator and has had no recurrence of the back pain.

Case 4. A. D. K., a man aged 54, complained of low backache off and on for 30 years, worse in the morning, with some radiation of pain down the right leg, aggravated by damp weather, and following standing or walking. He had been going to an osteopath every 2 or 3 weeks for "manipulations and adjustments" which gave some relief, though the backache was never entirely absent. Examination showed a well developed, well nourished, moderately obese white male with marked lordosis, a mild shelving of the lumbosacral junction, and tenderness over the lumbosacral junction and in the sacrococcygeal area. X-ray examination revealed a spondylolisthesis of

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* A product of E. R. Squibb and Sons.

the fifth lumbar and first sacral segment with marked secondary hypertrophic changes and localized osteoarthritic changes between D-9 and D-10. He was given d-Tubocurarine chloride in 3.5 c.c. doses, and put on heavy doses of salicylates. Because he was not acutely ill, he was given a support and advised to limit his activity. It was not thought feasible to do surgery at this time. He was seen subsequently at monthly intervals. Except for occasional tenderness, which he stated has never been as severe as when he was first seen, he has been able to continue his business without interruption and has been able to go on long automobile trips. Occasionally he has taken relaxing baths. Only 1 additional injection of d-Tubocurarine chloride, 7 months after the first visit, was necessary. He felt no further need for osteopathic treatment.

Case 5. R. T., a man aged 33, "strained" his back 10 years ago. He had had repeated backaches every 4 to 6 months with marked pain on changes of position and sneezing. Six months prior to treatment he was "out of position" when he sneezed and had to be taken to a hospital, where he was treated conservatively with traction and physiotherapy. He obtained some relief but was never entirely free of pain at any time and had recurrences, the last one 3 days before being seen. The patient, a well developed, well nourished man, had a right structural lumbar scoliosis with a marked tilt of the pelvis, spasm of the right erector spinae muscle, and pain in the right iliolumbar fossa. Right lateral bending, right body twisting were painful, and all back motions were limited. Jarring test was positive on the right side. X-ray films taken that day showed a moderate lumbar scoliosis with a compensatory dorsal scoliosis. The patient was given 3.6 c.c. of d-Tubocurarine chloride intramuscularly and put on absolute bed rest. He felt so much relieved the next day that he wished to leave the hospital. However, it was felt wiser to keep him in bed, and another injection of d-Tubocurarine chloride was given. No narcotics or sedatives were used. Except for occasional telephone calls to remind me of his freedom of pain, he has been working hard in his own restaurants, often acting as a waiter and carrying trays which he had been unable to do before this treatment.

Case 6. G. B. H., a man aged 45, complained of pain down the right leg of 6 months' duration. "It is a constant ache and worse after driving and in the morning." The pain persisted even when he was in bed or when sleeping on the floor, and on walking up and down steps. The pain was worse in wet weather. While in military service he had a "stiff back," for which he was treated at various times and by various means. Examination showed a very well nourished and well developed male who stood with a list of the pelvis to the right. There was marked spasm of the right erector spinae and the sacrococcygeal muscles on the right side with no abnormal reflexes and no changes in sensation. Straight leg raising was limited on the right side, and Gaenslen's sign was positive on the right side. X-ray films showed an old healed fracture of the third lumbar vertebra and a spondylolisthesis of the fourth on the fifth lumbar vertebrae. There was some reactive osteitis in the right sacro-iliac joint. The right leg was found to be 1 inch shorter than the left. The patient was given d-Tubocurarine chloride, and physiotherapy was instituted. A lift was applied to his shoe, and d-Tubocurarine chloride was repeated on alternate days for 4 treatments. He was put on corrective exercises and a lumbosacral belt prescribed. For 10 months following treatment there has been no recurrence of pain, he has worked daily, and outside of the lift to his shoe he has had no treatment.

A routine of therapy was used in which pain and spasm was completely or partially obviated and the existing etiologic element was treated secondarily. D-Tubocurarine chloride solution* (3 mg. per c.c. or 20 units per c.c.) is injected intramuscularly in dosages of 1 c.c. of the solution for every 50 pounds of body weight. The patient is placed prone on the table and heat (infra-red, luminous or short-wave) is applied to the area of tenderness and pain. Fifteen minutes later a light sedation-type of massage is given. At that time the patient may complain of lightheadedness, diplopia, and some muscle incoördination. This is a normal reaction. He is then advised to have bed rest with bed boards for the next 12 to 16 hours, after which he is instructed to use hot baths 2 or 3 times daily. A second or third injection may have to be given on succeeding days. Sedatives and salicylates are prescribed as required.

Although the above technic is an office procedure, the physician must warn the patient against driving for the following 6 hours.

The use of this drug, though relatively simple, is somewhat dangerous in inexperienced or careless hands. It must be definitely determined that spasm is present, and then sufficient quantity of the drug should be given to control the spasm. It is obvious that inadequate dosage will be useless, but, if adequate quantities are used, the surgeon must be prepared to meet any emergency from untoward or side-effects. Hence definite precautions must be taken. It is wise to have oxygen readily available. It is also pertinent to again emphasize that judicious selection of cases is mandatory. A backache, with no spasm, is not the type of case that will be benefited by the administration of d-Tubocurarine. Backaches of nonorthopedic nature are also on the ineligible list.

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* Tolserol (E. R. Squibb and Sons) solution: 20 mg./c.c. with 0.6 per cent sodium chloride.

Prostigmine must be on hand as an antidote, and in order to alleviate the patient's fears he must be told of the expected effects and sensations. It is advisable to have someone take the patient home, since signs of incoördination may be exhibited. Atropine in conjunction with morphine may hasten the toxicity of curare, hence should be avoided.

This method is extremely valuable when traction is used, since both methods supplement each other. The relief is noted usually 10 to 15 minutes after injection and increases for the next hour or two. Occasionally the relief is permanent, but more often some return of pain is to be expected although it is never as severe or incapacitating as before the injection of this drug. Once the pain is absent or diminished, the usual methods of treating the cause or causes of the condition are employed. It is emphasized again that this method is one of symptomatic relief and that etiologic elements and the exciting factors must be eliminated or corrected. It is also pertinent to know that the pain and spasm often persist even after these causes are eliminated.

Because of the long period of recovery in backaches and the fact that resumption of activity after a period of rest often brings on fatigue and pain, which again sets up the cycle, the treatment of backaches is troublesome and often discouraging. Hence, breaking the cycle will often effect a cure provided the existing agents and etiologic elements are also treated or eliminated. It is hardly necessary to mention that all principles of medicine and surgery should be utilized to the fullest extent.

Specific uses of this drug in similar cases may be referred to in the literature.[1–10]

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MENTAL HYGIENE IN CHILDREN[*]

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THE PHRASE "mental hygiene" to be well taken must be taken "with a grain of salt." It must be seasoned with an awareness of the limitations of communication by verbal symbol. Because "mental" defines a complex function of personality in which individuality is an outstanding characteristic, it will always convey primarily unique rather than common human experience. Yet, in spite of the probability of misunderstanding and in the face of a voluminous literature, those with professional responsibilities in the field continue to channel some part of their labor into verbal presentation of its problems and achievements.

The most objective evidence for the meaning of "mental hygiene" lies in the history of its use, and for our topic, its use in relation to children. Historically, the phrase acquired popular and stable meaning when it was chosen to identify the development known as the mental hygiene movement. Organized on state, national, and finally international lines, inspired and financed largely by nonmedical 20th century United States citizens, it had initially four objectives: to protect the dignity of the individual who was suffering from severely incapacitating mental illness; to secure the best treatment known for his cure; to develop more adequate methods of treatment; to discover methods of prevention.[1] Of these four points, the preventive aspect served best to mobilize and to maintain popular interest. In the beginning of the movement, mental illness, traditionally identified by adult manifestations such as prolonged dependency and antisocial acts and attitudes, was seen as a disorder of adulthood. Prevention meant influencing human behavior at a pre-adult period of development, childhood. Children, then, became associated with mental hygiene as the most likely candidates for preventive efforts. These were directed toward the child of "the use of reason" age and were elicited most frequently by school failure and delinquency. The limited interest can be accounted for by reason of the cultural prestige given to intellect and literacy, and to the fact that there was available a technic for measuring and comparing so-called intellectual functions. Treatment methods were generally based on a presumption that learning could be gained from symbols through directing and ordering without regard to the personalities transmitting and receiving these symbols. Under pressure from the social needs of the child as grasped by the new profession of social work, and after the demonstration by a new medical specialty, child psychiatry, that the child himself is capable of suffering mental illness, a tool for diagnosis and treatment was evolved, the child guidance team.[2] This team, composed of psychiatrist, psychologist and social worker, is analogous to the surgical team in its relation to the patient and has remained one of the major projects of the mental hygiene movement. Recently it has been used well as a tool of research in human relations not only in the family but in professional fields as well.

The importance of the experiences of life before the age of reason gradually grew through psychiatric research which had been busy with the problem prior to and independent of the mental hygiene movement. Sigmund Freud's visit in 1909, by invitation, to Clark University, Worcester, Massachusetts, was to a prepared field. G. Stanley Hall had studied the psychology of the child at adolescence and Adolf Meyer had developed a preventive approach to mental illness. Dr. Meyer urged, for prevention, that we see in the symptoms of mental illness faulty ways of trying to overcome difficulties and that we endeavor to recognize these problems before the patient has to have recourse to abnormal symptoms. Dr. Freud, meeting with the American scholars, brought attention to the meaningfulness of all human behavior at all ages and especially to the importance of childhood. The personalities and the setting of the momentous events at Clark are to be found in "The Common Sense Psychiatry of Dr. Adolf Meyer".[3] Dr. William A. White in 1920 published the classic of this period, "The Mental Hygiene of Childhood."[4] Its punch lines, which are not yet wholesomely accepted, insisted that the child is possessed of an orderly developing sexuality, and that within the family, as a part of its very nature, reside certain disruptive tendencies.

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[*] Presented at the Fifth Intensive Postgraduate Course, George Washington University School of Medicine, April 7, 1950.

Though the importance of the pre-intellectual life of the child was recognized, mental hygiene investigators and therapists for some time thereafter acted as though its needs could be met by a simple adult-child relationship with any well-intentioned and socially conforming adult supplementing the intellectual, emotional and somatic deficiencies of the child. Then came the realization of the specific use of human, personal, physical contacts by the infant. Relatively slowly, for such a once plain fact, it began to dawn on the child guidance team that the term "child" is not complemented adequately by hyphenating with "adult"; that there exists a more specific, necessary complement which is "parent." This was a rebirth of human wisdom not unlike the Renaissance of the 15th century, which found almost limitless inspiration in the mother and infant, although the motivation was usually religious. Today, mental hygiene has advanced further. The dynamic factors of childhood are symbolized, not as "mother-child" but as "father-mother-child" relationships. In the early personal environment the infant is made ready to relate smoothly to siblings, contemporaries, and community.

There is in mental hygiene with children today another development, exclusively medical. It is the inclination and ability of physicians, particularly pediatricians, to be aware of, look for, and treat actively symptoms of personality disorder of childhood itself. While the responsibility for this medical activity lies largely in the mental hygiene movement through the pressure exerted by it on the medical group, still its clinical achievements have been produced under medical leaders.[5]

Familiarity with the history of the use of the phrase "mental hygiene" in relation to children has practical significance for each physician. It is my observation that the sequence of events I have described is found not only in the mental hygiene movement but is experienced in a remarkably similar order in each individual in relation to his growth in mental hygiene. Any one, no matter how unacceptable some of the ideas of mental hygiene are, can find one stage in the sequence onto which he can step and begin to take active part. The bibliography appended may be helpful.[6–9]

There is danger, today, that in a misunderstanding of methods the hard-won knowledge of principles and ideals will be obscured and the search for greater wisdom concerning the infant hindered. We each have a personality mechanism by which the material and experiences of our environment are grasped by the person only as they meet his immediate need in solving pressing problems. It is this "envelope," a term coined by Dr. Plant,[10] that can account for the misunderstanding among physicians about breast-feeding and the mental hygiene of infants.[11] There must be many whose "envelope" does not allow breast-feeding to have positive and constructive meaning.

It is not necessary for parents who are breast-shy to force themselves to breast-feeding. They should remind themselves that, although it is necessary to admit and identify ideals and the validity of man's effort to reach them, it is equally necessary that we accept our limitations of the moment, that man never achieves perfection, and that modes of action toward good are determined not by ideals alone but by human readiness to act. Such parents should not let themselves be ordered, or directed, or threatened, or seduced into attempting breast-feeding. They must, however, give thought to why they are so unready for such a natural act. They should feel enough guilt for motivation to work out some path of action toward the ideal. A flinching breast or an overly exuberant breast constantly intruding itself on the baby out of maternal need to overcompensate is not as good as the humble bottle supplemented by faithful reproduction of all accessory natural procedures. Breast-shy parents can and should make of their own honest necessity to accept bottle-feeding an experience through which they grow in wisdom and maturity. By the close physical contact in bottle-feeding, though less direct and personal than in breast-feeding, they may be able to develop a sense of security about fundamental natural human relations, overlooked or avoided in recent generations.

To attempt a dogmatic presentation of practice in the space of a few pages seems to me to misrepresent the field. Mental hygiene with children is incomparably broader than the field of medical practice. However, a consideration of the physician's role may be appropriate. Mental hygiene principles dictate that the physician caring for a child see himself as a parent-agent and/or a parent-substitute. As a professional parent-agent paid for by the parent, he then has to identify himself with the parent as well as with the child. At the same time he makes the parent a medical agent who gives the child the medical treatment prescribed. If this role-sharing takes place in a well balanced parent-child relationship, it is easily relinquished by all the parties when the illness is over. If it occurs in a family where parent-child relations are constantly strained, the parent, finding himself really meeting some of his child's needs by the giving of medicine, etc., may tend to prolong the illness situation. Thus, a family with lots of illness, particularly long and vague chronic illness, may be considered to have faulty mental hygiene, with the possibility of sad consequences as far as the mental health of the various individuals is involved, sometimes including the doctor. This is not a rare situation in our culture, and we physicians should recognize it and know enough to judge how serious the parental limitations are and our own involvements and then take care to give the patients every break in their striving for independence and be prepared to drop the parent-substitute role promptly and gracefully.

In other situations of poor parent-child relations, the male physician is used by the mother to belittle and to deprive the father of what paternal satisfaction and opportunities he may be due. A physician aware of the possibility of this can in some way make clear that he recognizes what is happening; he can point out factually that he is not a member of the family and there is no guarantee that he is a better parent; he can keep an accepting attitude toward the father as well as to the mother and the child. Understanding the importance of the physician's attitude and using it well (simple though difficult at times), one can shift emotional pressure just enough to avoid family crises even as serious as divorce. It is the physician's attitude, rather than specific actions, which dispenses good mental hygiene to his child patients. His philosophy of life is an important component. The frank materialist cannot be a real physician. The best he can be is an excellent technician. On the other hand, the physician who profesess to believe in the higher value of human nature can be the source of serious danger when he uses his profession too much and unconsciously to satisfy his needs to have people dependent on him. He tends to extend his medical authority into other areas of human relationship. He is liable to miss the meaning of symptoms resulting from a struggle for independence and unconsciously thwart the patient's efforts toward personal adequacy.

A physician can very easily turn a neat trick in mental hygiene in his work with children by the way he handles certain stock questions from parents: "Well, Doctor, what can you tell me about my child?" The poor mental hygiene answer is either a discourse on the disease or lack of disease as diagnosed, or an impression of the child himself. This second procedure, in the case of the inadequate parent who is largely a stranger to his child, is a breach of professional ethics, since, to the degree that he is a stranger, he is not entitled to the revelation that the child made of himself to the physician. The safe answer is, "I don't know exactly what I can tell you about your child. What would you like to know?" followed by real attention to the parent and real effort at understanding.

"Doctor, tell me what to do" is full of pitfalls. It requires clarification, because that request is merely a yell for help. The good mental hygiene technic is to offer what may possibly be done and then more importantly to reassure the parent in what he is ready to do. Another common question, "What would you do if you were I, Doctor?" is not taken lightly. Actually, it proposes an impossibility, because to suppose "you" to be "I" requires such complete identification as to make the patient·the doctor and the doctor the patient. Mental hygiene recognizes in that question a rejection of the physician's judgment. Is it that the parent is rejecting the physician as inadequate or is the parent saying he is not ready to carry out what the physician rightly feels will be necessary for the relief of the situation? The question frequently comes from the parents of an adolescent who has been badly neglected in spite of the presence of symptoms calling for psychotherapy over years. It means the burden of change lies with the child, who will have to find strong parent-substitutes, sometimes special community agencies such as court, plus general resources such as school, job, and church, often psychiatric care.

The unique contribution which medicine can make to mental hygiene in children is adequate parent-child-doctor relationship grounded on the principles that the child is a complete individual of equal value with each of us; that his behavior at all times is meaningful; that as long as he is a child his parents are essential to his individuality and have no adequate substitutes; that parents do not improve through being made to feel guilty, but rather they improve as parents through learning how to use their guilt constructively; that the doctor's role specifically is to relieve what is currently accepted as pain, whether of body or of personality; that his minimum criterion for performance is to do no harm.

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President's Page

". . . CHARGED WITH SPIRITUAL VALUES. . ."

Christmas is always a merry season but it is also a season charged with spiritual values of deep and fundamental nature. Christ has represented many things to many people, but one of His greatest qualities was that of unselfishness. In our profession, unselfishness is one of our everyday virtues and accepted tenets. But how many of us practice unselfishness? If we forget ourselves, we immediately see the great need of others around us, and that should fire us with the desire to serve and to help in greater degree. Let us not stop with a few unselfish acts as they relate to our immediate practice—a night call, a little morale-boosting pat on the back and a pep talk here and there. These things are excellent, but are they sufficient? Should not we as doctors endeavor to do more things not only in cases of individual need, but also in a larger community way? It would be healthy to see more doctors active in politics, in education, in religion, and in smaller community endeavors of all kinds.

Therefore, let us all have a bright and merry Christmas, but also let us reckon more with the spiritual things as well.

Wm. M. Ballinger

Editorials

CHRISTMAS TO REMEMBER

We Americans are a strange people. Not only do we "put sugar in our tea to make it sweet and then lemon to make it sour," but we constantly strive to improve our station in life and then, from the loftier eminence, look back and grow nostalgic for what we left behind.

The yearning for a "white Christmas" captivated all of us during the War years. The sentiment of the Crosby song was just as poignant for those who had never seen a "white Christmas" as for those who had never known any other until the War dispersed them to milder climes. I suspect that many preferred the "white Christmas" in song to the white Yuletide in reality with its walks to shovel, cold motors to start, and icy highways to battle. To each one "white Christmas" recalled something different, but to most of us the Christmases remembered harked back to the ones we "used to know."

How many of us remember distinctly what we did last Christmas, even what we got or gave, or the Christmas before? This year's Christmas lies at hand, but a veil, and not a white veil, shrouds those that lie ahead. How about making this Christmas one to be remembered by you and by your loved ones not only one year from now, but ten years, or twenty years, or more?

In this year 1950 it seems rather a large order to make a Christmas to be remembered. What could one give, for instance, that would be so special that it would be remembered long after the giver had departed? What, indeed, in a year when money is flowing so freely and purchases are so heavy that legislators feel obliged to curb installment buying and increase taxes in order to drain off excess capital?

No, it can scarcely be a gift; gifts in the United States have become too common. Even children's fanciful desires are anticipated to the degree that they can think of nothing to ask for. Through the press, over the radio, and now by television, merchants cry their wares until we grow weary of listening and long for the "day after" so the clamor will abate. In this connection, Noah Webster in his Unabridged gives a not so subtle commentary on the difference between Christmas in England and the United States: the former, a time to sell decorations; the latter, a time to buy gifts.

A charitable Christmas, then? One in which the whole family partakes, perhaps? Yes, such a Christmas might go down as one long to be remembered, to be sure, but probably more for some surprising turn it might take. Most physicians do not have to be reminded of the satisfactions that come from charity. That is part of their own "stock in trade."

No, the Christmas that will be remembered longest will be a home celebration. Our records show that one third of our members are new members. Most of these new members are young doctors. And most young doctors are fathers with families of young children. To continue, most doctors are good story tellers—I suppose story telling goes with the profession. And so this Christmas I should like to suggest to you physician-fathers, or to you physician-grandfathers, not to neglect the greater two thirds, that you switch off the television and shut off the radio for an hour or so on Christmas Eve and read to the children gathered under or around what may resemble a Christmas tree, not Dick-

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of the Medical Society of the District of Columbia

ens' "Christmas Carol," but that incomparable Christmas story told by a physician in the most beautiful poetry of all time (Luke 2: 1–20). Then, having considered the project worthy of some previous research, in which doctors must of all scientists be most proficient, tell them the story of Christmas in your own way—what the gifts signify, why the songs are sung, the origin of the Christmas tree, how Christmas is celebrated in other lands (you veterans recalling some of your personal experiences), how even men in battle have been impelled to call a truce in observance of the birth of the Christ-child who came on a mission of Peace. Years away Christmas 1950 may be remembered as the year Dad told the Christmas story.

Such a Christmas may make a difference in your own life. Do you scoff at this? Well, then, let me tell you this story of one of our own members as it was told to me. He was a general practitioner and he wearied of the demands upon him day and night; so he decided to become a specialist, and he chose his specialty wisely. He became an anesthetist. Came Christmas Day; all that morning he was busy in the operating room—but it did not seem like Christmas at all. Anesthetized patients are not apt to be in a holiday mood. Finally he spoke to the head nurse, "Has anyone said Merry Christmas to you?" "Why, yes," she answered, "why do you ask?" "Well," he mused, "this is the first Christmas no one has given me a Christmas greeting and I miss it."

And the good doctor called back some of his old patients. "Just to hear a Merry Christmas?" you ask. Well, that's for you to answer; "you're the doctor."

A. L. E.

"YOU AND YOUR DOCTOR"

Radio Station WWDC has kindly allocated a fifteen-minute period each Thursday at 10:15 p.m. to a sustaining program of public interest under the sponsorship of the Committee on Public Relations of the District Medical Society. Members of the Subcommittee on Radio and Television, who are in charge of the production of "You and Your Doctor," as the series will be known, feel that something special must be offered to encourage the listening public to tune in on this program. For the time being, at least, no controversial subject relating to the economics or politics of medicine will be discussed. Based on questions that patients ask us in our offices, a series of commonplace diseases have been selected, and one of these will be handled each week in as simple and basic a fashion as possible. As far as practicable all medical terminology will be dispensed with, and only words, phrases and analogies understandable to all will be used.

The actual mechanics of the production is, we hope, a little out of the ordinary. The principal effort is to make each presentation as informal and warm as possible. Two doctors are supposed to meet casually in the Staff Room, or perhaps the surgeon's dressing room, of a hospital, where they discuss the subject selected from the viewpoint of the patient. A running dialogue will be used instead of an exposition, and the doctors themselves will carry it along. Their own names will be used to further promote a sense of realism.

Several difficulties present themselves. None of us are skilled in the writing of such scripts, nor are any of us trained radio actors; yet we are in competition for public interest with those who are. The cost of hiring such talent would be prohibitive. However, the mere fact that actual practicing physicians, and not actors, are writing and voicing the scripts may in some degree offset these objections. It is also hoped that practice will develop in us a certain degree of proficiency in both of these fields.

For the time being, until the pattern of the program has been definitely worked out in practice, Dr. Wm. T. Gibb, Dr. J. Roscoe Creer and

DeWitt Fox, the members of the Radio Subcommittee, will do the entire program themselves. It is then hoped that other physicians will volunteer and be willing to help out by taking a definite active part in this effort.

We hope that in criticizing this program the members of the medical profession will keep in mind that we are directing our efforts entirely toward giving information to those who have little or no knowledge of the basic scientific aspects of medicine, and that we are competing for their attention with other agencies who employ professional talent of a high order.

William Travis Gibb, Jr.
Chairman, Subcommittee on Radio and Television

CANCER IN CHILDREN

"I did not know that children had cancer." This is a common impression shared by many laymen, and to some extent physicians are under the impression that malignant tumors are infrequently seen in children. Figures compiled in 1945 showed that malignant neoplastic disease, including leukemia, ranks among the first four causes of death in children.

Because the chemotherapeutic agents and the antibiotics have so rapidly reduced the mortality from meningitis, pneumonia, diarrhea and the various other contagious diseases, this change in frequency has not become apparent to everyone. Including leukemia as a malignant disease, cancer causes more deaths in children than poliomyelitis, syphilis, scarlet fever, measles, diphtheria, tetanus or diabetes mellitus singly. It competes with tuberculosis as a cause of death.

Until recently there has been an apparent lack of interest in the treatment of cancer in the young. This may have been due in part to the impression that such disease represented a hopeless situation. An improvement in this attitude has come about through increased knowledge on the part of both parent and physician and the realization that through early recognition, improved surgical technic and therapeutic agents much can be done to save or prolong the lives of these patients. Early recognition of the presence of a tumor can only come through the alertness of the parents and the physician. Most tumors which are present in children can be felt. Inasmuch as many children are regularly examined by physicians in their offices and well-baby clinics, a thorough examination of the lymph nodes, bones and abdomen may allow the discovery of a tumor which would be undetected by a cursory examination.

Most tumors in children are congenital, and several, such as retinoblastoma, neurofibroma and osteochondroma, appear to have a hereditary background. The influence of age and the effect of the endocrines during adolescence on the characteristics of a tumor are best illustrated by the changes seen in nevi and pharyngeal fibroma in this age group. Such changes offer a challenge to those interested in cancer research. Carcinomas are rarely seen in patients under five years of age. Sarcomas and embryomas are most frequently seen in this age group.

There is a great difference in the organs affected in children as compared with adults. The areas most commonly involved in children are the kidney, eye, sympathetic and central nervous, blood and lymphatic systems, in contrast to the involvement of the skin, gastrointestinal tract, breast and reproductive organs in adults. The two most common abdominal tumors in children are the embryoma of the kidney (Wilms' tumor) and neuroblastoma. Leukemia is much more frequently seen in children than in adults and runs a much more rapid course. It makes up nearly half of all malignant disease seen in children under 13 years of age.

The change in the attitude of physicians and surgeons from one of hopelessness to optimism is due to increasing knowledge which combines the experiences of the attending physician, surgeon, radiologist, pathologist and research worker. Aided and encouraged by the American Cancer Society, through the compilation of statistics, evaluation of technics, and group study of the problem there has evolved a definite plan of action in many hospitals which was lacking previously. For instance, the prompt recognition and removal of an abdominal tumor, with improved surgical technic and postoperative irradiation, should materially reduce the mortality from Wilms' tumor and neuroblastoma from the level they now attain. Leukemia offers a similar challenge to the research worker and physician. Utilization of chemotherapeutic agents, the folic acid antagonists, ACTH and cortisone, and the antibiotics have brightened the outlook for the leukemic child whose parents could only look forward to a quick exitus. It is believed that better results will be obtained as newer compounds and other agents become available. The use of nitrogen mustard, irradiation and the isotopes are providing aid in the treatment of some of these tumors.

While there is little reason to believe that there has been much increase in malignant neoplastic disease in children in recent years, our ability to detect these tumors has been in direct proportion to our interest in finding them. During the two years that the Tumor Clinic and Tumor Board at Children's Hospital have been in existence nearly one third as many malignant tumors have been seen as were observed in a previous 10-year period at the hospital. The field open to those who are interested in the diagnosis and treatment of cancer in children is one in which much is being accomplished and much is to be done. We have every reason to believe that this challenge will be met.

E. Clarence Rice, M.D.

In and Out of Focus

BY THE OBSERVER

Medical Costs versus Income

On page 701 in this issue of the Medical Annals there appears an article on "The Costs of Hospitalized Acute Illness" by Isidore Altman, of the Division of Public Health Methods, United States Public Health Service, and your Observer. While physicians may shy away from the numerous statistical tables, they are well worth scrutiny. Here for the first time, so far as your Observer is aware, is an analysis of the costs to hospitalized patients as compared with their incomes.

Undoubtedly the facts revealed in this study will be used in ways which those responsible for it never intended. This possibility was recognized by the Society's Committee on Medical Care which recommended the study with a two-fold purpose in mind: (1) to ascertain the extent of the financial burden of hospitalized illness, and (2) to determine the degree of financial assistance those surveyed received from Medical Service of the District of Columbia, the youngest Blue Shield Plan and one of the lustiest (coverage: 240,000 persons), and Group Hospitalization, Inc. (coverage: 460,000).

When your Observer first discussed with the AMA and Government officials the desirability of making the study, he was told that such an investigation had not been previously undertaken because of its cost and the difficulty of obtaining the necessary data. That it was accomplished in this instance is due to a number of factors, the most important being the coöperation of many individuals and groups. This would seem the proper place to acknowledge the valuable assistance given by patients, physicians, hospital administrators and other executive hospital personnel, and medical organizations and their staffs. The Committee on Medical Care especially deserves high commendation for its initiative and continued interest. A most important contribution was made by the U. S. Public Health Service. In fact, if its facilities and personnel had not been made available to the Society, the investigation could not have been undertaken. Mr. Altman and his associates carried out their assignment with diligence and scrupulous care. Obviously, all of the statistical material is their handiwork.

Reprints of the article setting forth the findings in this study, which originally appeared in the *Journal of the AMA*, are available at the Society's Executive Offices.

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The Doctor-Draft Law The attitude of some Government officials, newspaper and radio commentators, and others toward younger physicians who have registered under the so-called doctor-draft law has been a source of concern to your Observer. He is well aware of the reasons for it and to a degree it is undoubtedly justified. But there are factors in the situation which unfortunately have been ignored. As a result injustices have been done these young physicians which should be rectified in so far as that is possible.

Our Society recognized early in 1949 that voluntary methods would not solve the shortage of physicians in the armed forces. It concurred in the prevailing view that A.S.T.P. and V-12 trained physicians were not only obligated to serve first but to volunteer their services without delay. However, the Society was realistic enough to take the position that this was unlikely except in a general emergency. It therefore urged the AMA "to develop a method of equitable selection" from among the A.S.T.P. and V-12 group and "those deferred from military service to complete their medical education." When a method had been decided upon the Society recommended that it be submitted to the Federal Government for its consideration.

The AMA's House of Delegates approved this resolution. What happened in the interval between its adoption and the enactment of the doctor-draft law is too long a story to relate here. As a matter of fact, it would not have a great deal of bearing on the point of these observations except in one respect.

Along in 1947 Congress voted to equalize the pay of physicians in the Army, Navy, Air Force and the Public Health Service to conform to the standards established for the Veterans Administration. This was known as the Incentive Pay Act for physicians and dentists who volunteered for more than nine months of active duty and who had less than 30 months of service. Our lawmakers hoped that their action would induce more and better physicians to enter the regular services.

Later when the doctor-draft law (1950) was enacted the $100 a month inducement was included for the purpose of stimulating younger physicians to volunteer.

That is about all the background necessary to evaluate recent events. Physicians have found themselves in the unenviable position of being singled out as the only group to receive $100 a month bonus to volunteer for military service. Understandably there has been some public resentment at what is considered discrimination. But the facts are that physicians themselves did not seek this bonus, nor, so far as your Observer knows, did it serve to stimulate doctors to volunteer in the numbers expected.

Few will deny that the compensation of medical officers should be commensurate with their specialized training; however, it should be in the form of base pay rather than a bonus.

Many young physicians have been content to await their selection under the draft law. And why not? To suggest that there is something unpatriotic about this is unfair. Some Government officials have gone so far as to state publicly that the draft law is a club which it is hoped will never be used. They warn that if drafted, physicians will find themselves privates in the ranks for a time at least.

There is no sense of enacting a law for scare purposes. Our Medical Society believed some such law was needed and it still does. Let it operate as intended and there should be little difficulty in obtaining the required medical officers for all branches of the armed forces. Certainly there is no justification for placing a large group of physicians in the embarrassing position they are in today.

These comments do not alter the fact that A.S.T.P. and V-12 trained physicians and others deferred to complete their medical education have a special obligation to discharge. That the needs of the Navy and Air Force have been satisfactorily met is cause for gratification. That the Army has not fared so well is to be regretted. At all events, blanket disapproval cannot be justified. As has been stated, the draft law should not be a "club"—nor so considered. Rather, it should be looked upon as "a method of equitable selection."

At the time this is written the world crisis deepens. What the situation will be when these comments appear no one knows. But of one thing we can be sure—in an all-out emergency the medical profession will respond as it has always done to its Government's call. In the meantime, let's use the machinery we have. That is what it's for.

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"*Social Revolution . . . in Progress*" Few physicians in our day have been more widely quoted than Dr. Paul R. Hawley, Director of the American College of Surgeons. That is not surprising, because Dr. Hawley has long been a figure of national importance. Colorful, pungent and forthright, he never leaves his readers or listeners in doubt as to where he stands and why. He is undoubtedly one of the soundest, and certainly one of the most progressive, thinkers in the medical profession on the social and economic aspects of medicine.

In an address before the Clinical Congress of the American College of Surgeons recently, he said, "I believe firmly that medicine cannot continue to fight successfully upon the political battlefield. I am convinced that our only hope of ultimate victory lies in our realization that profound social changes have already occurred which neither we nor anyone else can reverse, and in an honest effort to adjust free medical practice to these changes."

Many thoughtful physicians will agree wholeheartedly with this statement. But there are still too many who are unaware or indifferent to what has happened or is happening. If they are conscious of what is going on they do not take it too seriously.

On this point Dr. Hawley told the Congress "the difficulties in which the medical profession now finds itself are due, in large part, to the failure of doctors to realize that a social revolution has been in progress in this country for three decades, and that it has undergone considerable acceleration in the past seventeen years."

With this statement your Observer is in thorough accord. Over a period of years he has urged the need for a sound, progressive medical leadership which recognizes that although change is not synonymous with progress, neither is status quo possible nor desirable.

Solving the social and economic problems involved in providing medical care requires patience, imagination and courage. It demands a realistic appraisal of the health needs of our citizens, individually and collectively.

Doctors will be more aware of this when they have felt the full impact of the changes which have already taken place. There can be little doubt that these will materially alter medical practice. Your Observer is confident that when this becomes apparent to physicians generally they will translate into action the hopes and aspirations of such medical leaders as Dr. Hawley. Already there are indications that many doctors are beginning to take the "social revolution" seriously.

USPHS and Our Society

Whatever the reason, there is not the close relationship nor the mutual trust which should exist between Government departments concerned with health and physicians engaged in private practice. On the contrary, one finds suspicion and not infrequently resentment. The extent to which this feeling exists, your Observer is not prepared to say, but in his travels about the country he has often heard Government health services described as hostile to the medical profession and its organizations. He is usually silent unless the U. S. Public Health Service is the object of critical comment, and then his remarks run something like this:

Where the District Medical Society is concerned the Public Health Service has always been friendly and coöperative. It has shown a genuine interest in the Society's activities and, when it could, has been of every possible assistance.

To be specific, on three occasions during World War II the Service made its statistical department and top-flight statisticians available to the Society for periodic surveys of practicing physicians in the District. The purpose of these studies was to ascertain the adequacy of medical personnel available to care for the civilian population. As the number of physicians in private practice dwindled it became increasingly important that only those who could most readily be spared be made available for military service. That this was accomplished in an orderly manner and with the least possible disruption of medical service was due in no small measure to the facts revealed in these studies and to their use by the District Procurement and Assignment Committee.

Also during the War when the Society's telephone exchange, Medical Bureau, was shorthanded, the Service provided personnel to respond to calls from the public for information about physicians. This vital service in the wartime Capital would otherwise have had to be abandoned.

For a number of years following the War the Service's top officials coöperated with the Medical Society in the development of a prepayment plan. When a plan had been approved, it designated one of its ablest physicians, Dr. G. Halsey Hunt, as its representative on the governing board.

The most recent project in which the Society and the Public Health Service have coöperated was in the development of a Guide for Planning of Physicians' Offices, just published by the American Surgical Trade Association in coöperation with the Service. This booklet is available to physicians on request. They will find it highly informative and helpful.

These are just a few examples of the close reationship which has existed between the USPHS lnd the Society. Largely responsible have been the former Surgeon General, Dr. Thomas Parran, and his successor, Dr. Leonard A. Scheele, both of whom have never been too busy to respond to requests for assistance from their medical colleagues.

Recognition in this column of services performed by USPHS at the request of the Society is long overdue. Completion of the recent study of medical costs (see above) seems an appropriate time to make amends.

* * *

Oregon Anti-trust Suit

More than a decade has passed since the now historic anti-trust trial involving the AMA and the District Medical Society. It is safe to say that a majority of the medical profession in Washington today have only a fragmentary, if any, knowledge of the affair. To those who were in active practice in the late 1930's and early 1940's, it is all but forgotten. Even to physicians who figured prominently in the proceedings, it is little more than a memory, albeit a not too pleasant one.

Some of the bitterness of past years is revived occasionally when ardent advocates of the compulsory health insurance program cite the anti-trust trial as evidence of the AMA's reactionary policies. But this is a fleeting reaction. At least so it appears to your Observer, who himself, at times, becomes resentful toward those who fall back on the trial to clinch their arguments against the medical profession.

Well, your Observer could unburden himself at length on this subject but that is not the purpose of these comments. Having been defendants in an anti-trust trial either as individuals or members, older physicians have more than a passing interest in legal proceedings instituted a year or so ago against the Oregon State Medical Society. For the charges leveled against this organization, some of its subsidiaries and individual members have a very familiar ring.

Your Observer has not followed the proceedings too closely, but on the basis of reports he was not too sanguine about the outcome. However, recent news from Oregon should not only please doctors of that state but also Washington physicians whose memories have been refreshed by this latest legal controversy involving a medical organization and the Government.

On September 28, 1950 the District Court of the United States for the District of Oregon in a memorandum opinion decided the suit in favor of all the defendants. The major points in the opinion, according to Howard Hassard of the Blue Shield Medical Care Plans, were:

> "1. The defendants and the Oregon doctors in the formation and operation of their own prepaid non-profit organization, Oregon Physicians' Service, have not violated the anti-trust laws.
>
> "2. That, on the contrary, Oregon Physicians' Service is not a conspiracy, but is rather an entirely legal and legitimate effort by the profession to meet the demands of the times for broadened medical and hospital service."

According to the *The Oregonian* for September 29, Federal Judge Claude McColloch, who wrote the opinion, held that none of the Government's charges was proven by the evidence. Said Judge McColloch, "Defendant doctors and medical societies have not restrained or sought to restrain the use of hospital facilities by others, except in cases of lawful and legitimate professional discipline of individual doctors for unprofessional conduct detrimental to their patients, to the hospitals and to the public generally.

"I find that the motive of the defendants was not to restrain or monopolize, that monopoly did not in fact result and does not exist nor does unreasonable restraint exist."

It appears that a determining issue in the decision involved two periods, that prior to the organization of the doctors' own state-wide plan in 1941 and the period after.

The Oregonian quotes from the opinion of Judge McColloch as follows:

> "This was the period when the doctors were trying to find themselves. It was a defensive period. The doctors felt they were being exploited. They were trying to maintain their professional standards. They felt the doctor-patient relationship was being destroyed.
>
> "It was a period of groping for the correct position to take to accord with changing times. The doctors sponsored their own prepaid plan (Multnomah) and then repudiated it. What the doctors did during this period was not conspiracy."

In regard to the period since the formation of the doctors' plan the Judge said:

> "I really doubt that the Government believes the operations of Oregon Physicians' Service are monopolistic. Its two chief competitors are tremendously profitable; they have the cream of the business, going only into selected areas, whereas OPS must go everywhere and has many other weaknesses inherent in coöperative enterprise.
>
> "I hold that Oregon Physicians' Service is not a conspiracy, but, rather, an entirely legal and legitimate effort by the profession to meet the demands of the times. . . . I will make a finding that the defendants did not conspire to restrain and monopolize prepaid medical care in the state of Oregon."

And finally reference is made to the AMA–District Medical Society case. Judge McColloch says, "the facts are different" and "the times are different."

T. W.

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Our Living Past Presidents

ADOLPHUS BOGARDUS BENNETT, M.D., President, 1934–35

The skipper at the helm of the Society in 1934–1935 was Dr. A. B. Bennett.

Dr. Bennett is another of Canada's contributions to the medical life of our Nation's Capital. Born at Brantford, Ontario, October 19, 1879, the son of Adolphus Bogardus Bennett and Susan Wilkes Bennett, he came to Washington at an early age. After attending grade school in Georgetown and Western High School, he studied medicine at Columbian University (now George Washington University) where he was graduated in 1901. Next spring (1951) will mark the fiftieth anniversary of his graduation. In 1899 and 1900 we find him an externe at Garfield Memorial Hospital and an interne at the same institution in 1901 and 1902. Later for many years he was attending otolaryngologist at his hospital alma mater and in recent years consultant there in the same branch.

He was licensed to practice, August 12, 1901, and after completing his internship, entered general practice in Georgetown in 1902. In 1904, looking toward his specialty, he took postgraduate work at Harvard under Mosher and in 1905 at Halle a/Saale, Germany, under Grünert. He received staff appointments in otolaryngology at Episcopal, Columbia and Garfield hospitals. He is a diplomate of the American Board of Otolaryngology. His office from 1906 to 1926 was in the Farragut Medical Building and since then in the Washington Medical Building.

Medical recollections from a previous era became his heritage by his marriage on October 17, 1910, to the charming Miss Susan Bierne Patton of Huntsville, Alabama. Mrs. Bennett is a lineal descendant of a man famous in American medicine; she is the great-great-granddaughter of Dr. Ephraim McDowell of Danville, Kentucky, who in 1809 with great courage and wisdom first successfully performed the operation of oöphorectomy (then called "ovariotomy") for a gigantic ovarian cyst, for a Mrs. Crawford who sought his assistance.

Dr. Bennett has always taken a keen interest in the development of Garfield Hospital and especially the progress of the house staff and the nurses' training school. His sister-in-law, Miss Shelby Patton, was on the nursing staff and before her recent retirement was for a number of years Superintendent of Nurses. Dr. Bennett is in demand for his whimsical after-dinner reminiscences at hospital functions.

Dr. Bennett has authored a number of papers on glossitis, mastoiditis, laryngology and postauricular fistulae and was the first to report on "Aural Typhoid Carriers—a Report of Two Cases," *J. A. M. A.*, January 6, 1917.

Dr. Bennett became President of the District Medical Society in 1934 and had the opportunity of putting into effect the revised Constitution and By-laws which were adopted by the Society in the month of his election, May 23, 1934. This Constitution expanded the number of standing committees, among which were the new Committee on Public Information and the Committee on Compensation, Contracts and Industrial Medicine. Dr. Bennett had been chairman of the committee which made the revisions; before that he had been for fifteen years a member of the Society's Executive Committee, and its Chairman in 1925, 1927, 1929–1931, and 1933–1934. He was made chairman early in 1925 of the first House Committee appointed after the Society's building was erected. He was at one time chairman of the Section on Otolaryngology. He has been an active member of the Society since 1902 and a Life Member since 1943.

He is Past President of the International Medical Club and of the George Washington University Medical Society. He was commissioned by President William McKinley 1st Lieutenant in the District of Columbia National Guard Medical Corps in May 1901 after three years as a private in the National Guard Ambulance Corps. In March 1913 he was commissioned Lieutenant, j.g., U. S. Navy Medical Reserve by President William Howard Taft. Dr. Bennett is a life member of the Sons of the Revolution.

His active interest in yachting has employed most of his extracurricular time for many years. Around 1914 he was active in the organization of the United States Power Squadrons and was its Chief Commander for four years. He helped to organize the Potomac River Power Squadron and was its Commander for nine years. He is still an active member of these organizations and has many "merit marks." He is a life member of the Corinthian Yacht Club of Washington and was for ten years its Commodore. Thirty years ago he was entertaining house officers of Garfield Hospital on *Aragon* when Corinthian had its clubhouse at the west end of the old "Long Bridge." *Aragon II*, which he has owned for the past 25 years, has given pleasure to many physicians and other friends who have been the recipients of his smiling, kindly hospitality. Any sunny noontime in the boating season may find him about the Yacht Club grounds where *Aragon II* is berthed, and many a budding boatman has been grateful for his wise advice and his counsel on safety at sea. Nothing pleases Dr. Bennett more than to spread a luncheon table for a few doctors on the afterdeck as his ship swings lazily at anchor in the breeze just out of the channel off Hains Point.

Through all these years, "A. B." has steered a good course. His youthful manner suggests that it will be many years before he finally lowers his anchor.

HERBERT P. RAMSEY, M.D.

THE COSTS OF HOSPITALIZED ACUTE ILLNESS*†

THEODORE WIPRUD

Executive Director and Secretary, The Medical Society of the District of Columbia

ISIDORE ALTMAN

Biostatistician, Division of Public Health Methods, United States Public Health Service, Bethesda, Md.

The problem of how best to meet the rising costs of medical care has become one of the most controversial subjects of the day. As a corollary has come an increasing interest in voluntary insurance plans and the extent to which such plans help to meet the costs of illness. Rational answers to the problems of medical care require factual data, of which not a great deal is available. Hence, the present study was proposed and sponsored by the Medical Society of the District of Columbia in the hope of providing some useful information. The Medico-Chirurgical Society of the District of Columbia and hospitals of the District coöperated wholeheartedly.

Apart from those kinds of chronic illness which require continuing medical attention, the type of illness most likely to prove burdensome is the one involving a period of hospitalization. It was felt that a contribution could be made by a study which limited itself to this type of illness. The objectives of the study were to obtain current information on (a) the costs of hospitalized illness among nonindigent persons and their relation to family income; (b) how the costs are divided among hospital, physician, and other services; and (c) the degree to which prepayment plans are helping their members to meet the costs of illness involving hospitalization. By definition, the episode of illness was limited to one month prior and one month after the period of hospitalization, except for obstetrical cases, where the entire prenatal period was taken. The data apply to all costs of the illness incurred in that period, regardless of where the cost was incurred.

The present report is based on 1,796 patients and gives the general findings on size of the medical-hospital bill and the cost to the patient.

Method of Study

The original population from which the patients in this study were drawn consisted of all "private" patients, approximately 3,080, admitted to 13 general and allied special hospitals in the District of Columbia over a period of 2 weeks. The city-owned hospital, the Federal hospitals (except Freedmen's), and one small proprietary hospital were omitted. The 2-week periods were spread over November and December, 1949; 1 hospital was completed the following January.

No patient was interviewed without the express permission of the physician who referred him to the hospital, this permission being granted by all but 10 per cent of 830 such physicians. However, an additional 3 per cent declined to furnish data on the charges they made in these cases. The patient's financial record in the hospital was made available to the study only with his written consent. The interviewers were employees of the Division of Public Health Methods, U. S. Public Health Service, which office has also supplied the necessary statistical personnel and facilities for analysis of the results. The fine service rendered by these interviewers is gratefully acknowledged.

The questions asked of the patient covered the following points: year of birth, occupation and industry of the patient and of the household head, number of persons in the family, family income, estimated loss of earnings from this illness, membership in a hospital or sickness insurance plan, source of funds to pay for this illness, other costs connected with the illness, and number of times members of the family were hospitalized in the past 12 months. Family income was not asked for directly; instead, the patient indicated into which of the following categories the family income fell: under $3,000, $3,000–4,999, $5,000–7,499, $7,500–9,999, $10,000 and over.

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* The study was made at the express wish of the Committee on Medical Care, The Medical Society of the District of Columbia, which consists of the following members: Dr. Karl C. Corley, *Chairman*; Dr. Maurice H. Friedman, *Vice Chairman*; Drs. C. Willard Camalier, Jr., L. Huntley Cate, Rush W. Conklin, Joseph W. Cooch, Vincent J. DiFrancesco, Frank J. Eichenlaub, Ernest A. Gould, John A. Kennedy, Richard H. Meredith, Edgar E. Quayle, Arch L. Riddick, Philip P. Steptoe, Harold Stevens, John A. Swartwout and Joseph J. Wallace. The Medico-Chirurgical Society of the District of Columbia was represented by Dr. Paul B. Cornely.

† Reprinted from J. A. M. A., 1950, **144**, 835.

Hospital costs were obtained directly from each hospital's financial records. A brief query of the physicians obtained the necessary data on their charges, the amounts received from any insurance plan, and the type of case, whether surgical, medical, or obstetrical. Physicians who had referred the case were also followed up for their charges.

was obtained from among females and from age group 25–34; a lower percentage was obtained among children. The reason for these differences is that obstetrical cases were the easiest to interview from the standpoint of length of hospital stay and accessibility, the parents of child patients the most difficult.

TABLE 1

Percentage Distribution of Interviewed Patients by Age, for Each Sex and Type of Case*

AGE (YEARS)	ALL CASES			SURGICAL			MEDICAL			OBSTETRICAL
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Female
All ages	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 5	7.0	16.7	3.7	8.0	15.2	4.2	14.3	19.8	10.8	—
5–14	6.1	14.0	3.4	10.3	16.8	6.9	4.5	8.2	2.2	—
15–24	14.6	7.5	17.0	8.9	8.8	9.1	6.6	4.8	7.8	30.3
25–34	30.0	13.0	35.7	21.2	12.3	25.9	13.8	14.4	13.4	57.1
35–44	16.0	14.5	16.6	18.9	16.8	20.0	13.8	9.6	16.5	12.6
45–54	11.5	14.1	10.6	16.3	13.6	17.6	15.6	15.1	16.0	—
55–64	7.8	11.6	6.6	8.2	8.7	7.9	17.8	17.8	17.7	—
65 and over	6.8	8.6	6.2	8.0	7.8	8.1	13.3	10.3	15.2	—
Unknown	0.2	—	0.2	0.2	—	0.3	0.3	—	0.4	—
Number of patients	1,796	455	1,341	904	309	595	377	146	231	515

* Includes patients who responded to mailed questionnaire.

The chief reasons for loss of patients to the study were, in order of importance, inability to interview the patient before he left the hospital, refusal on the part of a few physicians to give consent for the interview on their charges, and patients' ignorance of family income and related matters. A questionnaire mailed to patients missed at the hospital achieved a return of 35 per cent. Outright refusals to be interviewed were encountered in only 2 per cent of the cases reached by interviewers.

DESCRIPTION OF PATIENTS

The distribution by age and sex of the observed patients is shown in table 1. There were three times as many females as males in this sample; almost twice as many when obstetrical cases are excluded. However, males far outnumbered females in the youngest age group, in both surgical and medical types of cases.

Chief differences, when comparison is made with 1,254 patients who could not be interviewed, are that a higher percentage of interviewed patients

TABLE 2

Percentage Distribution of Patients by Length of Stay in Hospital, for Each Type of Case

LENGTH OF STAY (DAYS)	TYPE OF CASE			
	All cases	Surgical	Medical	Obstetrical
Total	100.0	100.0	100.0	100.0
1–2	15.8	26.5	11.4	0.4
3–5	29.3	25.2	33.7	33.4
6–9	35.2	24.1	27.3	60.6
10–14	12.0	14.5	15.4	5.0
15–19	3.5	4.3	5.3	0.6
20–29	2.6	3.4	4.2	—
30 and over	1.6	2.0	2.7	—
Average length of stay (days)	7.37	7.32	8.79	6.42

Average length of stay was 7.4 days among the observed patients, while in the total population of 3,080 patients it was 6.6 days. The difference reflects the difficulty in getting to the short-stay cases before they were discharged. Distribution of the observed patients by length of stay is shown in table 2. Medical cases stayed the longest time, 8.8 days, and obstetrical cases the shortest, 6.4 days; surgical cases were about half-way between, 7.3 days. The high percentage of surgical cases with only 1 or 2 days' stay evidences the large number of tonsillectomies performed.

TABLE 3

Percentage Distribution of Patients by Family Income, According to Industry of Household Head

ANNUAL FAMILY INCOME	ALL PATIENTS	GOVERNMENT	TRADE	MANUFACTURING AND CONSTRUCTION	TRANSPORTATION AND COMMUNICATION	PROFESSIONAL PURSUITS	NONE (RETIRED, ETC.)	OTHER	UNKNOWN
All incomes	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under $3,000	23.6	15.1	24.5	20.9	21.3	22.1	68.1	43.6	23.6
$3,000–4,999	43.4	47.5	43.7	47.7	53.9	28.4	21.0	23.1	43.4
$5,000–7,499	21.8	25.9	20.6	24.9	16.3	19.0	7.5	15.4	22.7
$7,500–9,999	6.1	9.1	4.8	1.3	2.8	11.6	1.7	7.7	4.7
$10,000 and over	5.1	2.4	6.4	5.2	5.7	18.9	1.7	10.2	5.6
Number of patients	1,796	657	359	153	141	95	119	39	233
Distribution of patients by industry	100.0	42.0	23.0	9.8	9.0	6.1	7.6	2.5	—

Of these 1,796 patients, 24 per cent had family incomes of less than $3,000 and 67 per cent had family incomes of less than $5,000 (table 3). A study of income in the Washington Metropolitan Area in 1947,* with which a rough comparison may be made, found the corresponding figures to be 41 and 72, respectively. These differences between the present data and the Bureau of the Census figures for the lower income groups stem of course from the fact that only pay patients were covered in the study.† Adjustment for this fact can be made by omitting the lowest income group from the percentage distribution. The resulting distribution of families with income of $3,000 and over is as follows:

Income	*Percentage distribution of families* *Present study*	 *Bureau of the Census*
$3,000 and over	100.0	100.0
$3,000–4,999	56.8	52.0
$5,000–7,499	28.5	32.0
$7,500–9,999	8.0	9.9
$10,000 and over	6.7	6.1

The proportion of families with incomes of $3,000 and over who had incomes of $10,000 or more was 6.1 per cent in the Bureau of the Census study and 6.7 per cent here. Since other studies have shown that this group seeks medical care more often than any other, a higher percentage than 6.7 was to be expected. However, there may be several good reasons why such was not the case. A large proportion of Washington's population is non-permanent and undoubtedly many of these people go back to their home towns for hospital care; as is the case in other communities, there are many who seek medical service elsewhere; many officials in the Government are also eligible for care in local Army and Navy hospitals; and, finally, there may be some whose incomes are understated. While the last is a common phenomenon when income is asked in social studies, the understatement may have been exaggerated in the present instance for fear that the information might influence the medical and hospital charges.

The last line of table 3 shows the distribution of patients by industry, in broad categories, of the household head. As was to be anticipated, a high proportion, over 40 per cent, were in Government service (Federal, District of Columbia, and foreign); in addition, 75 patients in households whose heads were not Government employees were themselves

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* Bureau of the Census. Income of Families and Persons in Washington, D. C.: 1947. Current Population Reports, Series P-60, No. 4. 1948.

† A small number of "medically indigent" may have been included—16 patients, for example, were not billed by their physicians because in the opinion of the latter they could not afford to pay.

TABLE 4-A

Distribution of Patients According to Membership in Insurance Plan, by Income and by Employment of Household Head in Government or Elsewhere

TYPE OF INSURANCE	ALL PATIENTS	ANNUAL FAMILY INCOME					EMPLOYMENT	
		Under $3,000	$3,000–4,999	$5,000–7,499	$7,500–9,999	$10,000 and over	Govern-ment	Other
		Per cent of patients						
Total*	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
None	29.8	43.7	24.0	24.0	29.1	41.3	22.1	36.2
Group Hospitalization, Inc.	50.7	35.9	57.7	57.0	47.3	37.0	65.4	38.9
Medical Service of D.C.†	23.7	16.3	28.5	26.1	18.2	13.0	30.1	18.2
Cash benefits	16.8	19.4	16.3	16.1	11.8	18.5	8.7	23.2
Group Health Association	2.6	0.2	1.7	3.8	11.8	5.4	3.7	1.8
Blue Cross (not D. C.)	2.6	2.1	3.3	1.8	2.7	2.2	2.6	2.8
Number of patients	1,796	423	780	391	110	92	657	906

* Percentages actually total more than 100 because a number of patients subscribed to more than one type of plan.

† Includes membership in Group Hospitalization, Inc. Hence, these percentages are contained in the percentages shown on the line above.

TABLE 4-B

Percentage Distribution According to Family Income of Patients in Each Class of Insurance

TYPE OF INSURANCE	ALL PATIENTS		ANNUAL FAMILY INCOME				
	Number*	Per cent	Under $3,000	$3,000–4,999	$5,000–7,499	$7,500–9,999	$10,000 and over
None	536	100.0	34.5	34.9	17.5	6.0	7.1
Group Hospitalization, Inc.	911	100.0	16.7	49.4	24.5	5.7	3.7
Medical Service of D. C.†	425	100.0	16.3	52.2	24.0	4.7	2.8
Cash benefits	302	100.0	27.1	42.1	20.9	4.3	5.6
Group Health Association	47	100.0	2.1	27.7	31.9	27.7	10.6
Blue Cross (not D. C.)	47	100.0	19.1	55.3	14.9	6.4	4.3

* Total of this column exceeds the actual number of patients, 1,796, because 2.6 per cent subscribed to more than one of these plans (see footnote below).

† These patients are also included in Group Hospitalization, Inc.

employed by the Government. Concerning income, the non-Government group had, relatively, 60 per cent more families with incomes under $3,000 as well as three times as many families with incomes of $10,000 or more.

The extent to which the patients observed in this study held some form of medical and hospital insurance is shown in tables 4-A and 4-B. Over 50 per cent of this sample were members of Group Hospitalization, Inc. (GHI), the equivalent of the Blue Cross plan for the District of Columbia. Slightly less than half of these members, 24 per cent of the total sample, subscribed also to Medical Service of the District of Columbia, which provides benefits for surgical and obstetrical services when such services are performed by a participating physician in a hospital. Three per cent of the patients were members of Group Health Association, a consumer coöperative. Seventeen per cent of the total held commercial insurance with various degrees of coverage. Thirty per cent had no form of insurance at all.

Tables 4-A and 4-B indicate also the relationship between family income and membership in these plans. The appeal of the non-profit group plans, Group Hospitalization, Medical Service, and Group Health Association, is mainly to the middle-income brackets; failure to belong to some plan is most frequent among the highest and lowest income groups. The latter may find the monthly premiums too high, the former may not feel the need for insurance. Of particular importance to the Medical Service Plan is the fact that membership in its service decreases markedly as income goes up, from 28 per cent of the $3,000–4,999 group to 13 per cent of the group with incomes of $10,000 or more (table 4-A). If an individual subscriber's income exceeds $2,500 or if the family income exceeds $4,500, the physician may charge the subscriber the difference between the amount paid by the Plan and his usual fee. Thus, the Plan may not offer sufficient inducement to these higher income groups since they may still have to pay a considerable portion of the surgeon's fees (see table 6 and page 706).

TABLE 5

Average Cost of Hospitalized Illness, by Type of Case and Source of Charge

ITEM	CHARGES							
	Amount				Per cent distribution			
	Type of Case							
	All cases	Surgical	Medical	Obstetrical	All cases	Surgical	Medical	Obstetrical
Total cost	$284.80	$304.10	$213.00	$303.60	100.0	100.0	100.0	100.0
Hospital*	131.20	132.60	131.60	128.50	46.1	43.6	61.8	42.3
Physician†	108.90	117.80	50.20	136.20	38.2	38.7	23.6	44.9
Anesthesia	14.60	18.50	.60	18.00	5.1	6.1	.3	5.9
Radiology	6.50	6.40	13.70	1.40	2.3	2.1	6.4	.5
Physiotherapy	.60	.60	1.50	—	.2	.2	.7	—
Electrocardiography	.30	.20	.90	—	.1	.1	.4	—
Special nursing (hospital)	10.20	18.30	3.90	.40	3.6	6.0	1.8	.1
Ambulance	.50	.40	1.00	.20	.2	.1	.5	.1
Other‡	12.00	9.30	9.60	18.90	4.2	3.1	4.5	6.2

* Includes pathology.

† Excludes other items shown in column.

‡ Laboratory, drugs, X-ray, nursing help, etc., outside of hospital.

The portion of table 4-A contrasting membership in voluntary plans of "Government" and "non-Government" families, classified according to head of household, brings out two salient differences between these family aggregates. In the first place, a higher proportion, over 75 per cent, of families in Government carried some kind of insurance. Second, commercial types of insurance that provide individual policies and cash indemnity seem to hold greater appeal for non-Government workers. The non-profit service plans in their educational and membership drives apparently fail to reach the latter in satisfactory measure. Lower income, age limitations, requirement that membership be through an organic group (until very recently), and opening of membership just once a year may contribute to this situation.

Cost of Hospitalized Illness

The average cost of illness among these patients was $285 (table 5).* Obstetrical cases and surgical cases both averaged $304, while the average medical case cost $213. Inspection of the costs itemized in the table shows the reason for this difference to be that physician charges are much lower in medical cases and that anesthesia charges are rarely encountered. The need for special nursing also arises less frequently in medical than in surgical cases.

The costs of physician services and of hospital care are not very far apart in surgical and obstetrical cases. Anesthesia, radiology, physiotherapy, and electrocardiography in the hospital are shown separately in the table because no division could be made between the shares going to the physician and to the hospital. Pathology has been included with hospital charges because a number of hospitals included it with clinical laboratory or "special laboratory" procedures. The average charge for pathology, for those hospitals where it could validly be determined, was $4.80 for surgical cases, $2.40 for medical, and $0.60 for obstetrical cases.

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* These figures may understate somewhat the whole cost to the family. Indirect costs are easily forgotten or overlooked. The figures do not include loss of earnings.

The average charges for items other than hospital and physician appear rather small, some almost insignificant. The reason is, of course, that these charges were not incurred in all cases; as a matter of fact, only in the case of anesthesia were they incurred by more than half of all the patients. The per cent of patients who had such charges and the average per patient were as follows:

	Per cent of patients receiving service	*Average charges per patient receiving service*
Anesthesia	69.8	$20.90
Pathology	29.6	10.60
Radiology	18.8	34.50
Special nursing (hospital)	7.3	139.30
Ambulance	4.8	9.80
Electrocardiography	2.2	13.30
Physiotherapy	1.7	34.10
Other costs	32.8	39.20

Table 5 has shown the total medical bill, regardless of how paid. The question which follows naturally is how much of this bill did the patient have to pay; or, conversely, in what degree was the patient helped by membership in some prepayment plan. The data are shown in table 6 for the total cost of the illness and for the two major categories, hospital charges and physician charges. Since eligible subscribers to Group Hospitalization (only) had all but 14 per cent of the hospital bill paid for them, they had just to meet 60 per cent of the total bill. The proportion met by Group Hospitalization would have been somewhat greater except for the private accommodations and other services sought by numerous patients. For surgical and obstetrical patients who belonged to the Medical Service Plan, 74 per cent of the bill was met—91 per cent of the hospital bill and 61 per cent of the physician bill. In addition, such members had to pay very little of the anesthesia, clinical laboratory, or radiology charges related to surgery or obstetrics. Subscribers to Group Hospitalization and Group Hospitalization combined with the Medical Service Plan had to pay 12 per cent of their total hospital bill.

Since the Medical Service Plan provides that physicians may collect an additional amount if the patient's income is sufficiently high, it is of interest to observe the variation in physician charges with income. The percentage of such charges that surgical and obstetrical patients in each income group paid was as follows: Under $3,000, 30 per cent; $3,000–4,999, 37 per cent; $5,000–7,499, 41 per cent; $7,500–9,999, 49 per cent; and $10,000 and over, 57 per cent. A portion of these percentages may be attributable to understatement of income and charges by the referring or family physician who was not compensated by the Plan.

The above data refer only to patients who were eligible for the specified benefits. There were 40 patients, less than 5 per cent of the total, who were ostensibly members of Group Hospitalization but were ineligible to receive benefits for this episode of hospitalization. With these patients included, the percentage of the hospital bill that Group Hospitalization subscribers had to pay is increased from 12 to 15. Similarly, 81 members of the Medical Service Plan, 19 per cent, received no monetary benefit for this illness, 63 because their cases were medical and 18 because their claims were disallowed for various reasons. When these patients are included, the percentage that Plan members had to pay of the physician bill increases from 39 to 46.

TABLE 6

Cost to Patient of Hospital and Physician Charges under Various Forms of Insurance

TYPE OF INSURANCE	TOTAL COST OF ILLNESS	HOSPITAL CHARGES†	PHYSICIANS' CHARGES‡
Group Hospitalization (only):* total	$273.60	$124.30	$106.40
Cost to patient	164.10	16.90	106.40
Per cent of total	60.0	13.6	100.0
Group Hospitalization and Medical Service:* total	279.60	120.80	118.30
Cost to patient	72.70	10.70	45.90
Per cent of total	26.0	8.9	38.8
Cash benefits: total	271.20	121.40	115.60
Cost to patient	171.30	—	—
Per cent of total	63.2	—	—
No insurance: total	321.00	144.20	116.70

* Includes only patients who were eligible for benefits.

† Exclusive of pathology.

‡ Exclusive of pathology, anesthesia, radiology, physiotherapy, and electrocardiography.

Those who belonged to commercial insurance or similar plans had somewhat over a third of their expenses paid through their policies. However, just what items were covered was not inquired into with respect to such plans. The individual questionnaires show great variation in total dollar amount of coverage—from little or nothing to virtually the entire bill.

One finding concerning costs that may seem a little surprising is that the average bill of the person with no insurance is higher than that of the person who has some insurance (table 6). Preliminary investigation indicates two contributory factors: income of patient and age. Table 4-A has already shown that membership in insurance plans is relatively low among high income groups (while physician charges are highest); at the same time, some brake is applied to the average among Medical Service Plan members by the fact that those of low income have little or no physician charges beyond the fixed schedule of fees. Membership is also lowest in the oldest age group; 70 per cent of the patients 65 years and older had no insurance.

It remains now to relate the medical bill to family income. Table 7 shows, by membership in plan and family income, the distribution of patients according to the cost to them of their bill. Among the patients with incomes under $3,000, 18 per cent had costs to them of $300 or more, 5 per cent had costs of $500 or more, and 1 per cent had costs totaling more than $1,000. This is after allowance for benefits derived from insurance memberships. In the next higher group, with incomes of $3,000–4,999, the percentage with costs of $300 or more was 16. For the former group particularly, and even for the latter, the present illness must have created a serious financial burden. In the group with lowest income and no insurance, over 30 per cent had costs of $300 or more. Of those in the same income group who had Medical Service insurance, none had costs of this magnitude. However, it should be borne in mind that this survey takes into account only one incident of illness. Most of these families and individuals had other medical expenses during the year which may or may not have been reduced by insurance. Inquiry was made into the number of other times members of the family were hospitalized in the past year. Average for the entire group was 0.5; in the group with lowest income the average was 0.4.

In addition to direct costs of medical care, an illness serious enough to call for hospitalization also causes some loss of earnings to a number of people. In the District of Columbia that number turns out to be rather small because Government employees and apparently some other groups can draw on their sick leave or are not penalized. Maternity cases presented a difficult problem because, under the same circumstances, some patients considered they were losing wages or salary while others did not; and there is serious doubt, in general, whether loss of earnings should be added to the total in obstetrical cases. Hence, data are given only for medical and surgical cases. Loss of earnings was reported by 136 patients, 11 per cent of the total. Such persons reported an average loss of earnings of $225. In addition, 30 patients stated that their wages would be docked but to an unknown extent; and 13 patients stated they did not know whether or not any deductions would be made from their earnings.

SUMMARY AND DISCUSSION

Data on a sample of 1,796 private patients admitted to general and allied special hospitals during November and December, 1949, and January, 1950, have shown the charges in the average hospitalized illness to be $285. The sum was made up of $131 in hospital charges, $109 in physician charges, $15 for anesthesia, $6 for radiology, $10 for special nursing, and $14 for other costs.

In this sample, 70 per cent subscribed to some form of voluntary insurance. Over half held membership in Group Hospitalization, Inc., and almost half the latter subscribed also to the surgical and obstetrical services of Medical Service of the District of Columbia. Seventeen per cent held commercial cash indemnity policies. Members of Group Hospitalization, including those who belonged also to Medical Service, had all but 12 per cent of their hospital charges paid through insurance. The Medical Service Plan met 61 per cent of the charges of those who had obstetrical or surgical care.

Thus, a considerable proportion of the hospital population was aided appreciably by membership in voluntary medical insurance of some kind. The data indicate, however, that there are gaps in service that should be studied seriously by those interested

TABLE 7

Percentage Distribution of Patients by Cost to Them of Hospitalized Illness: Patients Grouped by Type of Insurance and Income*

INSURANCE AND INCOME	NUMBER OF PATIENTS	COST OF HOSPITALIZED ILLNESS TO PATIENT							
		All costs	Less than $50	$50–99	$100–199	$200–299	$300–499	$500–999	$1,000 and over
All patients:	1,770†	100.0	20.4	16.4	26.9	17.5	13.9	4.0	0.9
Under $3,000	416	100.0	18.5	15.9	28.1	19.2	13.0	4.1	1.2
$3,000–4,999	771	100.0	23.2	19.0	26.3	15.6	12.5	2.6	.8
$5,000–7,499	385	100.0	17.4	15.6	27.5	17.4	17.4	4.4	.3
$7,500–9,999	109	100.0	17.4	11.0	24.8	23.9	16.5	5.5	.9
$10,000 and over	89	100.0	21.3	7.9	25.8	16.8	12.4	12.4	3.4
No insurance:	535	100.0	.9	6.4	27.3	25.8	28.0	9.2	2.4
Under $3,000	185	100.0	1.6	10.3	28.1	29.2	21.6	7.0	2.2
$3,000–4,999	186	100.0	.5	5.4	29.6	24.7	31.2	6.5	2.1
$5,000–7,499	94	100.0	1.1	3.2	25.5	17.0	38.3	13.8	1.1
$7,500–9,999	32	100.0	—	3.1	21.9	31.3	31.2	9.4	3.1
$10,000 and over	38	100.0	—	2.6	21.0	31.6	15.8	21.1	7.9
Group Hospitalization, Inc. (only):	452	100.0	11.7	22.6	34.3	19.9	9.7	1.6	.2
Under $3,000	79	100.0	17.7	25.3	36.7	10.1	7.6	2.6	—
$3,000–4,999	213	100.0	10.8	25.8	35.7	19.2	6.6	1.4	.5
$5,000–7,499	113	100.0	8.8	19.5	30.1	26.5	14.2	.9	—
$7,500–9,999	29	100.0	6.9	6.9	37.9	27.6	17.2	3.5	—
$10,000 and over	18	100.0	22.2	16.7	27.7	16.7	16.7	—	—
Medical Service of D. C.	416	100.0	45.7	25.7	19.0	5.3	3.8	.5	—
Under $3,000	68	100.0	57.4	23.5	17.6	1.5	—	—	—
$3,000–4,999	217	100.0	49.3	25.3	17.1	4.1	3.7	.5	—
$5,000–7,499	99	100.0	36.4	27.3	21.2	8.1	6.0	1.0	—
$7,500–9,999	20	100.0	20.0	40.0	20.0	20.0	—	—	—
$10,000 and over	12	100.0	33.3	8.3	41.7	—	16.7	—	—
Cash benefits:	240	100.0	27.5	12.9	25.0	17.5	12.5	3.8	.8
Under $3,000	71	100.0	26.8	11.3	28.1	19.7	11.3	1.4	1.4
$3,000–4,999	99	100.0	32.3	14.2	21.2	18.2	10.1	3.0	1.0
$5,000–7,499	49	100.0	18.3	14.3	28.6	18.4	18.4	2.0	—
$7,500–9,999	10	100.0	30.0	—	20.0	10.0	20.0	20.0	—
$10,000 and over	11	100.0	27.2	18.2	27.3	—	9.1	18.2	—

* That is, contributions to the payment of charges by insurance plans have been deducted from the total cost of the illness.

† Not based on all 1,796 patients because costs to the patients were unknown in 26 cases. Breakdown by type of insurance does not total 1,770 patients because only the numerically strongest groups are shown.

in forwarding the progress of insurance plans. The hospitalization plan may be said to serve the purposes it set out to; i.e., those who subscribe to it have little to pay, generally, in charges for direct hospital services as they are customarily defined. The Medical Service Plan's coverage in this respect is not as complete. Since for those whose incomes are above stated levels the physician can obtain additional payment, a number of patients studied here paid a substantial portion of the physician charge. As a consequence, the higher the income bracket, the fewer the numbers of persons attracted to the plan. Membership by persons in the very low income group is also small—very likely, because of the premiums charged.

As for the costs of medical care in general, the impression these findings give is that the costs of such care when it requires hospitalization are high but not exorbitant in terms of what the patient

(*Continued on page 724*)

Hospital Service Agency News

Because of three alternate rates of payment to hospitals for HSA-certified patients, there has been some misunderstanding by hospitals as well as by a number of patients who are able to reimburse HSA in deferred payments for their hospitalization. Since the Medical Society originated the basic philosophy of the central admitting bureau it seems appropriate to explain for readers of the MEDICAL ANNALS how HSA accounts are set up and handled.

The necessity for three alternate rates arose when the HSA budget for 1950 was estimated and new hospital rates, based on a survey made by an auditing firm, were established.

The survey, covering 14 hospitals, revealed a wide variation of costs, ranging from $9.98 to $17.90 per adult in-patient day, and from $2.62 to $4.41 per infant day. These costs were derived from the actual 1948 case loads on the books at each hospital. The weighted averages of these per diem costs were $14.80 and $3.75, respectively.

The Community Chest wanted to uphold the principle of reimbursement at cost for hospitalization. However, because of the wide ranges of costs, it was obvious that a fixed rate would be advantageous to some hospitals, but inexpedient for others. Under the circumstances it was agreed, for in-patient care, to pay each hospital (1) its own average cost, or (2) the average cost for the whole group of hospitals, whichever was less. Since in some cases the hospital billing would be less than either (1) or (2) it was further agreed that (3) the average billings of each hospital computed separately for each month would be the rate of payment if it were less than either (1) or (2).

Thus when certifying a patient, HSA sets up an account at $14.80 per day or at the rate established by the survey for the hospital to which he is sent, whichever is less. HSA is billed by the hospital at the time of the patient's discharge and if the bill comes to less than the amount originally set up, the patient's account is then credited with the difference.

It is believed that this procedure has tended to reduce the total collections at HSA during the year. The lowest of the three alternate rates is paid to the hospital, but if the hospital's billing on an individual patient is less we cannot collect more even though the patient, if given time, is able to pay.

ARLINGTON COMMUNITY CHEST PROPOSAL

Some members of the Medical Society will remember the duplication of work and the waste of diagnostic effort which occurred some years ago when not only each hospital but each Community Chest applied a separate set of criteria for admitting staff cases at charity rates. This waste and confusion was so completely eliminated by the central admitting plan that most physicians and Community Chest officials today are not even aware of the importance of HSA as a service agency.

Comes now the Arlington Community Chest with a proposal to take over, in the name of autonomy, the screening and investigation of all Arlington residents to determine their eligibility for financial help from the Chest with free medical care from the doctors. Since two thirds of the Arlington Chest patients go to Washington hospitals most of the medical care will be provided (free, of course) by Washington doctors.

The hospitals, which have not lost any of their autonomy because of HSA, are dubious of the Arlington Chest proposal. During 1950, HSA will have paid out $41,000 for Arlington residents, of which $32,000 comes from Community Chest Funds. Arlington proposes to set up its own agency with a budget of $8,000. If that County has a Chest allocation of $32,000 and spends $8,000 for a new agency it will have only $24,000 for hospitalization of Arlington residents in 1951. Can they expect to "recapture" a net of $17,000 from semi-indigent patients to make up the difference?

HSA EXHIBIT IN DEMAND BY COUNTY COMMUNITY CHESTS

The exhibit presented by HSA at the 21st ANNUAL SCIENTIFIC ASSEMBLY of the Medical Society has been requested for publicity to aid the Red Feather campaigns of the Community Chests of two of the adjoining counties.

The display is a working apparatus consisting of plasti-glass tanks and tubes showing the distribution of the "life blood of charity" originating with doctors' services and Chest contributors, and flowing through the Community Chest Federation and HSA into the

(*Continued on page 724*)

REMITTANCE OF DUES FOR SERVICE PHYSICIANS

At the meeting of the Executive Board of the Medical Society of the District of Columbia, August 28, the following motion was adopted relative to remitting dues for members who enter the armed forces:

THAT, effective January 1, 1951, dues of Active members who enter the armed forces for an extended period (not less than one year) be remitted.

THAT, where the member is activated before April 1, he shall not be required to pay dues for the current year; if activated after that date he shall be required to pay his dues.

THAT, following the first year of continuous service in the armed forces, the Active member's dues shall be remitted until his separation from the armed forces which, if it occurs before April 1, shall make the member liable for payment of current dues; if after that date, he shall not be required to pay dues until the following year.

THAT, where a member enters the armed forces but continues to carry on civilian practice in the community, his dues shall not be remitted.

THAT, medical officers who apply for Active membership in the Society while in the armed forces shall be required to pay $20.00 for the first year; thereafter their dues shall be remitted as in the instance of Active members prior to entering the armed forces.

THAT, the American Medical Association be notified of the above action and be requested to take similar steps to relieve members of the Association in the armed forces from paying membership dues.

A notice of the action taken by the Board was sent to Dr. George F. Lull, Secretary of the American Medical Association, who replied on October 12 as follows:

"The Board of Trustees at its meeting last month voted that physicians who are called into active service will be required to pay dues in the American Medical Association for the half year in which they go into service; in other words, those physicians who go into service prior to July 1 will remit only for the first half of the year; those who go into service after July 1 will remit for the second half as well as for the first half of the year—but they will not be expected to pay dues thereafter, while they are in service.

"The Board also voted that from 1951 on physicians who go into service will be regarded as nonpaying members in military service. It was understood, of course, that they will not receive *The Journal*.

"I might say also, in this connection, that the Board established Fellowship dues at $5.00 a year."

PLURALITY OF HOSPITAL STANDARDIZATION PROGRAMS

The standardization of hospitals through a system of inspection and approval, which has long been a function of the American College of Surgeons, is now receiving attention from other organizations.

The American Hospital Association, at its meeting in Atlantic City, September 18–22, adopted the following resolutions, which had been drawn up by its Board of Trustees on August 5:

WHEREAS, The American College of Surgeons, through its hospital standardization program, has made a most significant contribution to improving the quality of hospital care for the American people; and

WHEREAS, It is the understanding of the American Hospital Association that the American College of Surgeons is withdrawing from the hospital standardization field; and

WHEREAS, The American Hospital Association believes that a hospital standardization program is vital to the continued improvement of hospital care; and

WHEREAS, The membership of the American Hospital Association for many years has expressed interest in having the American Hospital Association conduct a hospital standardization program; and

WHEREAS, It is traditional in American life that organized groups shall assume responsibility for improving quality through standardization of the programs conducted by the members of such groups; and

WHEREAS, The members of hospital governing boards and the organization which represents them are the logical group for furthering the improvement of hospital care through national standardization, now therefore be it

Resolved, That the American Hospital Association establish a hospital standardization program; and be it further

Resolved, That the American Hospital Association invite interested organizations of the medical profession to coöperate in the development of standards relating to the practice of medicine in hospitals; and be it further

Resolved, That other professional organizations concerned with the problems of hospital standards be invited to coöperate with the American Hospital Association in a hospital standardization program.

The American Medical Association, in an editorial in its *Journal* for September 30, took the American Hospital Association to task for acting prematurely in the matter of setting up its own hospital standardization program. It questioned the wisdom of placing the improvement of medical standards in the hands of a lay organization, with the AHA as " 'plaintiff, judge and jury.' " The editorial closed with this warning: "The American Medical Association will not step quietly aside if the medical profession is convinced the welfare of its patients is jeopardized. It has under discussion its own hospital standardization program in preparation for such an eventuality."

The most recent announcement concerning this controversial issue is a news release of October 21 from the Regents of the American College of Surgeons, who met in Boston, prior to its Clinical Congress. The release reads:

> "At their meeting today in the Hotel Statler, the Regents of the American College of Surgeons voted unanimously to continue the Hospital Standardization Program of the College.
>
> "A spokesman for the Regents stated that this action does not necessarily preclude consideration of proposals for the participation of other interested agencies in this program, but does make it clear that the American College of Surgeons has an undiminished interest in it and will consider no proposal which will not insure its continuation in the best interests of the public."

In his Secretary's Letter of October 20, Dr. George F. Lull, Secretary of the AMA, refers to an editorial on "Hospital Standardization" which he prepared for the November issue of *The Modern Hospital*. The editorial, he states, reviews some of the problems faced by the American College of Surgeons, the American College of Physicians, the American Hospital Association, and the AMA in setting up a hospital standardization program. He quotes the closing statement from his editorial: "It is our hope that the program so successfully carried out by the College over the last 30 years can be extended under a plan acceptable to all organizations concerned, and that such a program will prove even more effective in bringing about the results toward which the several organizations are striving—that of better patient care."

NEW RADIO PROGRAM

The first of a series of Thursday night broadcasts entitled "You and Your Doctor" was presented, November 2, over WWDC. These weekly programs, sponsored by the Committee on Public Relations of the Medical Society of the District of Columbia, are presented as a public service feature of radio station WWDC. Designed to improve the health of a community through a better knowledge of medical topics, these programs are informal discussions by physicians of common diseases which the public should know about. Some of the more common medical procedures are explained in simple terms by the discussants.

Participating in the first series of broadcasts, thirteen in number, are the members of the Subcommittee on Radio and Television, namely, Dr. William T. Gibb, well known Washington physician and Vice Chairman of the Committee on Public Relations of the District Medical Society; Dr. J. DeWitt Fox, a Takoma Park physician and Editor of *Life and Health;* and Dr. J. Roscoe Creer, a Washington surgeon. Two of these three physicians prepare and present each program. It is anticipated that other physicians will become interested and will volunteer to participate in both the script writing and the vocal presentation.

These programs are broadcast each Thursday at 10:15 p.m. over WWDC. The subjects which have been discussed to date are: high blood pressure, arthritis and rheumatism, appendicitis, weak heart, constipation, modern anesthetics, and stomach ulcers. Topics for further broadcasts are:

December 21	The Chronic Cough
December 28	Tissue Sampling or Biopsy
January 4	The Doctor Looks Inside the Body
January 11	After the Age of Forty
January 18	Ruptures, Their Cause and Cure
January 25	Medical Values of Hobbies

Listeners are invited to send in their questions, which will serve as a basis for future broadcasts. All questions should be mailed to YOU AND YOUR DOCTOR, Radio Station WWDC, Washington, D. C.

News and Personals

The 11th Annual Congress on Industrial Health will be held, February 26 and 27, 1951, at the Atlanta-Biltmore Hotel in Atlanta, Ga. On Sunday afternoon, February 25, preceding the Congress, the chairmen of State Committees on Industrial Health are invited to a joint meeting with the AMA Council on Industrial Health.

The 52nd Annual Meeting of the American Therapeutic Society will convene in Atlantic City, N. J., June 8, 9 and 10, 1951, just prior to the meeting of the AMA. The Chalfonte-Haddon Hall will be the headquarters of the meeting. Dr. Oscar B. Hunter, Secretary of the Society, urges members to make their hotel reservations immediately, mentioning the meeting of the American Therapeutic Society when doing so.

Those who wish to present papers at this meeting are urged to submit titles without delay to the Secretary's Office at 915 19th Street, N.W., Washington, D. C.

The Scientific Council of the Washington Heart Association will sponsor a meeting in the Medical Society's building, January 15, 1951. Dr. Charles P. Bailey, Associate Professor of Thoracic Surgery, Hahnemann Medical College of Philadelphia, will speak on "Surgery for the Relief of Mitral Stenosis, Valvulotomy and Valvulectomy."

The Armed Forces Medical Museum at 9th and Independence Avenue, S.W., is displaying an exhibit in honor of Hermann von Helmholtz, the inventor of the ophthalmoscope. The exhibit opened on December 17 and will continue for six months. The opening date marks the 100th anniversary of Helmholtz' letter to his father describing the instrument which was to enable doctors to see the interior of the human eye for the first time.

The exhibit includes an extensive collection of ophthalmoscopes illustrating their development from the Helmholtz drawings to the modern electrified instruments. A number of rare instruments and atlases, the latter loaned from the Army Medical Library, are on display.

Competitive examinations for appointment of **Medical Officers in the Regular Corps of the United States Public Health Service** will be held on February 12, 13 and 14, 1951. Applications must be received no later than January 15, 1951. Appointments will be made in the grades of Assistant Surgeon and Senior Assistant Surgeon. Application forms and complete information may be obtained by writing to the Surgeon General, USPHS, Federal Security Agency, Washington 25, D. C., Attention: Division of Commissioned Officers.

The American Academy of Neurology announces the publication of a new journal, *Neurology,* to be published bimonthly, the first issue of which will be mailed in January, 1951. Its editorial scope will embrace every aspect of clinical neurology including diseases of the nervous system, neuropathology, neurosurgery, neuroanatomy, neurophysiology and neuropsychiatry.

Dr. Russell N. DeJong, Professor and Chairman of the Department of Neurology, University of Michigan, is the Editor-in-Chief. Associate Editor is Dr. Webb Haymaker, Chief of Neuropathology, Armed Forces Institute of Pathology. Included on the Editorial Board are two Washington physicians, Dr. Pearce Bailey, Chief of Neurology, Veterans Administration, and Dr. Francis M. Forster, Professor and Director of the Department of Neurology of Georgetown University.

The journal will be published by Lancet Publications, Inc., of Minneapolis.

The Army Medical Center has announced the maintenance of an **artery graft bank,** available for use by other hospitals in the area. Live human arteries are stored in a metal refrigerated bank, shaped like a half-moon, at Walter Reed Army Hospital for use as grafts where patients have suffered a severe injury to any large artery. The arteries, obtained from accident victims, are kept alive in a special solution for 30 days.

This bank has been set up with the coöperation of the Army Medical Service Research and Graduate School at the Center and the consulting staff of George Washington University.

The Section on Anesthesiology of the District Medical Society and the **Potomac Society of Anesthesiologists** held a joint meeting in the Medical Society's building, November 27. Dr. William E. Bageant, Chairman of the Section, presided. The Anesthesia Study Commission held a panel discussion, with Dr. Weston Bruner, Chairman of the Commission, as moderator. He was assisted by the other members of the Commission, who are Drs. Bageant, Seymour Alpert, Frank J. Grabill, and J. Phelps Hand. Drs. Philip J. Lowenthal, John J. Andrina, Margaret E. Callan, Ervin N. Chapman, Allen Widome, Lewis Mangus and Lloyd Hughes assisted in the study by reporting cases from hospitals not represented by Commission members.

The next meeting of the Section on Anesthesia will be held on January 22.

The Executive Board of the Medical Society of the District of Columbia at its meeting, October 23, approved the choice of Colonel William L. Wilson by the District Commissioners as Assistant Director in charge of Medical Care Services for Civil Defense in the District of Columbia.

With approval of the Board, President Ballinger appointed the following members to serve on a Special Committee to Study the Medical Care of Indigent Patients in the Metropolitan Area Hospitals: Dr. Crenshaw D. Briggs, *Chairman*; Drs. William P. Herbst, John Minor, John M. Orem, Herbert H. Schoenfeld, Frank D. Costenbader, William S. Anderson, Montgomery Blair, Jr., Leo B. Gaffney, Philip A. Caulfield, and Clayton B. Ethridge.

Dr. William J. Tobin was appointed Vice Chairman of the Committee on Arrangements for the 22nd ANNUAL SCIENTIFIC ASSEMBLY. Dr. Leonard T. Peterson, who was Vice Chairman last year and who became Acting Chairman after the departure of Colonel Karl C. Corley on military duty, is Chairman for the 1951 ASSEMBLY.

It was moved that the Board extend an invitation to the American Medical Association to hold its 1953 Clinical Session in Washington.

Dr. C. K. Fraser, Chairman of the reactivated **Obstetrical Board,** reminds physicians that if they are interested in attending meetings of the Board, they should write or phone the Executive Offices of the District Medical Society and request to be placed on the mailing list for notices of meetings. The telephone number is District 3111.

Dr. Thomas Bradley will be host to the **Clinico-Pathological Society,** January 16. Case reports will be presented by Drs. Bernard L. Hardin, Jr., and Bernard W. Leonard.

On November 21, Dr. Worth B. Daniels entertained the Society at his home on 28th Street, N.W. The following case reports were presented: "An Unusual Case of Erythema Multiforme," Dr. Crenshaw D. Briggs, and "Hypersensitive Carotid Sinus," Dr. J. Ross Veal.

Members of the **Osler Society** will be guests of Dr. James E. Wissler, January 15, 1951. The essayist of the evening will be Dr. Walter W. Boyd; Dr. Bernard L. Hardin, Jr., will give the case report.

The November 20th meeting of the Society was held at the home of Dr. Floyd S. Rogers. Dr. Theodore Winship read a paper on "Carcinoma of the Thyroid in Children," following which discussion was opened by Dr. G. H. Klinck of the District Thyroid Registry and Dr. Ernest Gould. Dr. R. Massie Page gave a case report.

New and sustaining **grants to aid mental health training** for psychiatrists, psychologists, nurses, social workers and medical students were announced, November 3, by the office of the Federal Security Agency. These Public Health Service grants, numbering 166 and totaling almost $2,000,000, will aid in the expansion of teaching programs in medical schools, universities and other training centers. An additional allocation of more than $1,000,000 will make possible the award of about 560 stipends to graduate students of psychiatry, clinical psychology, psychiatric social work, and psychiatric nursing.

The following funds have been earmarked for institutions in the District of Columbia:

Georgetown University, $12,500 for undergraduate psychiatry

CALENDAR OF MEETINGS

October 16	Special Committee of Executive Board and Medico-Chirurgical Society
	D. C. Division, American Cancer Society
October 18	Scientific Meeting of Society
October 19	Section on Radiology
	D. C. League of Nursing Education
October 20	Committee on Industrial Medicine
October 21	Washington Psychiatric and Psychoanalytic Societies
October 23	Executive Board
	Committee on Public Relations
	D. C. Chapter, American Academy of General Practice
October 24	Committee on Medical Care (Classification of Physicians)
	Committee on Military Affairs
October 27	Committee on Military Affairs
	Committee on Public Health
	Clinical Society, Diabetes Assn.
October 29	Committee on Military Affairs
October 31	Grievance Committee
November 1	Woman's Auxiliary
November 4	Washington Society of Pathologists
	Washington Psychoanalytic Society
November 6	Subcommittee on Periodic Health Examinations
November 7	Membership Luncheon
	Health Section, United Community Services
	D. C. Chapter, American Physical Therapy Association
November 8	Scientific Meeting of Society
	Committee on Medical Care
	Subcommittee on Periodic Health Examinations
	Woman's Auxiliary
November 9	Health Section, U. C. S.
	Lay Society, Diabetes Association
November 10	Committee on Military Affairs
November 11	Washington Psychoanalytic Society
November 13	Washington Orthopedic Club
November 14	Medical Officers' Reserve Units
	Women's Board, Providence Hospital
November 15	Committee on Medical Ethics and Deportment

American Psychological Association, $8,000 for clinical psychology

Catholic University of America, $90,920 for clinical psychology, psychiatric social work, and psychiatric nursing

George Washington University, $19,412 for undergraduate psychiatry and graduate psychiatry (a new grant)

Howard University, $42,905 for undergraduate psychiatry, graduate psychiatry, and psychiatric social work

St. Elizabeths Hospital, $4,400 for stipends to be paid directly to psychiatric residents

Washington-Baltimore Psychoanalytic Society, $6,480 for graduate psychiatry (a new grant).

An additional amount of $735,854 in teaching grants to the Nation's medical schools by the National Heart Institute (PHS) was also announced, November 3, by the office of FSA. A total of $1,463,814 has been awarded to date by the Heart Institute to 49 institutions in 29 states and the District of Columbia.

Two Washington institutions, Georgetown and Howard Universities, are participating in the heart teaching grants. They have been assured $14,000 each per year over the two-year period, 1949–51.

The Department of Medicine of Georgetown University School of Medicine sponsored a graduate course in the "Clinical Application of ACTH and Cortisone Therapy" at the School in November. There were four evening sessions, and a registration of 107 physicians.

The course was conducted under the chairmanship of Dr. Laurence H. Kyle, Assistant Professor of Medicine and Cancer Research Fellow. Other members of the teaching staff who assisted in presenting the course were Drs. Harold Jeghers, Thomas F. Keliher, John Curry, Bernard J. Walsh, Darrell C. Crain, Charles E. Rath, Proctor Harvey and Paul Doolan.

The subject matter was divided between the four meetings as follows:

November 7: Introduction. The basic physiology of ACTH and adrenocortical hormones (with special emphasis on the 11-oxysteroids).

November 9: Discussion of the economic, social, and psychosomatic aspects of steroid hormone therapy.

November 14: Presentation of material on the treatment of asthma and allergic conditions.

November 16: Comments on the large group of miscellaneous diseases which have been treated with cortisone and ACTH with special attention to those in which these drugs have proven to be of some benefit.

More than 500 medical leaders from 28 countries attended the **Fourth General Assembly of the World Medical Association,** which was held at the Hotel Roosevelt in New York, October 16–20. Dr. Elmer L. Henderson, Louisville, President of the AMA, was installed as President of the WMA. Representing the United States as delegates to the Assembly were Dr. Ernest E. Irons, Chicago, immediate Past President of the AMA, and Dr. F. F. Borzell, Philadelphia, Speaker of the AMA's House of Delegates.

Dr. Dag Knutson, of Sweden, is the new President-elect. He will assume the presidency of the Association at the Fifth General Assembly in Stockholm, Sweden, September 15–20, 1951. Athens, Greece, was selected as the meeting place for 1952.

WMA is a voluntary organization of national medical associations from 41 countries with a combined membership of nearly 500,000 physicians. More than 225 American doctors attended the meeting in New York, the first WMA General Assembly to be held in the United States.

A Conference of Medical Editors of the World was held immediately following the meeting of the General Assembly. Presiding was Dr. Morris Fishbein, Chicago, Editor of the *World Medical Association Bulletin.* Theodore Wiprud, Managing Editor, and Miss A. Louise Eckburg, Assistant Editor, of the MEDICAL ANNALS, attended the editors' meeting, which was held at the Hotel Roosevelt, October 21. Papers of special interest were presented by Dr. Hugh Clegg, Editor of the *British Medical Journal*, Dr. Joseph Garland, Editor of the *New England Journal of Medicine*, Dr. Stanley B. Weld, Editor of the *Connecticut State Medical Journal* and Chairman of the Advisory Committee on State Journal Advertising Bureau of the AMA, and Dr. Austin Smith, Editor of the *Journal of the AMA*.

At the annual meeting of the Governors and Fellows of the **American College of Surgeons,** held at the Copley Plaza Hotel, in Boston, October 26, Dr. Alton Ochsner, Professor and Director of the Department of Surgery, Tulane University of Louisiana School of Medicine, was chosen President-elect of the College. He will be installed at the 1951 Clinical Congress in San Francisco.

Four Washington physicians were named to the Board of Governors of the College for a three-year term. They are: Dr. Brian Blades, Professor of Surgery of George Washington University School of Medicine; Colonel Warner F. Bowers, M.C., U. S. Army; Rear Admiral Arthur H. Dearing, M.C., U. S. Navy; and Dr. James N. Greear, Jr., Chief of the Department of Ophthalmology, Emergency Hospital.

At the 36th Convocation in Symphony Hall, October 27, 978 initiates were received into fellowship, the largest class since 1914. The fellowships were conferred by the President, Dr. Henry W. Cave, of New York. The Fellowship Address, on the subject, "Quo Vadimus," was delivered by the Director of the College, Dr. Paul R. Hawley, of Chicago.

Fellowships in the College were conferred upon the following physicians from the District of Columbia: Drs. Roland E. Bieren, Philip Burka, A. F. Castro, Ernest A. Gould, T. Wiley Hodges, Vincent M. Iovine, James J. McFarland, John A. Norcross, Hugo V. Rizzoli, Frank J. Sanzaro, and Saul Schwartzbach.

For the first time in the history of the College, an honorary fellowship was conferred outside the field of medical and surgical practice. Brigadier General Robert Wood Johnson of New Brunswick, N. J., Chairman of the Board of Johnson & Johnson, was so honored as "a philanthropist whose generous benefactions have contributed significantly to the advancement of medical research." General Johnson was Vice Chairman of the War Production Board and Chairman of the Smaller War Plants Corporation during World War II.

The 1950 Diabetes Detection Drive of the American Diabetes Association was given impetus during the week, November 12–18, by means of the press, the radio and television. Each of the four major radio networks scheduled special programs. Medical and lay journals and the daily newspapers coöperated in bringing Diabetes Week to the attention of the public.

Dr. John A. Reed, Chairman of the Committee on Diabetes Detection, was heard over ABC on Tuesday evening, November 14. Dr. Reed and Dr. Priscilla White, of Boston, interviewed Hamilton Richardson, 17-year-old tennis champion, basketball star and honor student, and a diabetic.

Fred Allen was master of ceremonies during a 25-minute broadcast, November 10, over MBS. His guests on the air were Dr. Elliot P. Joslin, Dr. Edward L. Bortz, Dr. Herbert Pollack, and some well known diabetics.

Columbia Broadcasting System prepared a special dramatization for Diabetes Week, November 10.

Dr. Howard F. Root, immediate Past President and former Chairman of the Committee on Diabetes Detection of the ADA, interviewed Bill Talbert over NBC on a noon program, November 11. Mr. Talbert is a famous tennis champion who is also a diabetic. Mr. J. Richard Connelly, Executive Director of the ADA, and formerly Assistant Secretary of the Medical Society of the District of Columbia, was master of ceremonies during this program.

Dr. Maurice Protas of Washington was recently appointed to the National Diabetes Detection Committee of the ADA. Dr. Protas headed the committee which conducted the drive in the Washington area.

Mr. Irving Tennyson was chairman of the Diabetes Detection Committee of the D. C. Pharmaceutical Association, which coöperated in the drive. Mr. Tennyson is an Associate member of the District Medical Society.

The Fourth Annual Meeting of the D. C. Division of the American Cancer Society was held in the Medical Society's auditorium, October 16. Reëlected President of the Board of Trustees was Mr. Walter S. Pratt, Jr., who is President of the Equitable Coöperative Building Association. Dr. Harry H. Kerr and Mr. Eliot Wadsworth were named Vice Presidents; Dr. Calvin T. Klopp, Secretary; and Mr. Frederick P. H. Siddons, Treasurer.

Members of the Executive Committee are the officers and Dr. Murray M. Copeland, Mrs. C. Ashmead Fuller, and Messrs. Edward F. Bartelt, Charles C. Koones and Alfred H. Lawson.

Members of the Medical Society who are serving on the Board of Trustees are, in addition to Drs. Kerr, Klopp, and Copeland, Drs. Roger M. Choisser, William P. Herbst, Daniel F. Lynch, Brian Blades, Ralph M. Caulk, and Peter D. Comanduras.

The Second Mental Hospital Institute was held under the auspices of the Mental Hospital Service of the American Psychiatric Association, in St. Louis, Mo., October 16–19. Washington physicians who attended and took part in the program were Drs. Daniel Blain, Addison M. Duval, Harvey Tompkins, Bernard A. Cruvant, George N. Raines, and Albert H. Fechner. Dr. Blain gave the closing address, October 19, on "The Future of the APA Mental Hospital Service," following which Dr. Duval presented some Army films on "The Mental Hospital in the Event of War and Atomic Disaster." Dr. Winfred Overholser is Chief Consultant of the APA Mental Hospital Service.

The George Washington University Medical Society held its first meeting of the year, October 28. Dr. James A. Evans, of the Lahey Clinic, Boston, gave the principal address on "Treatment of Thromboembolic Diseases." Following his presentation, the subject was discussed from the standpoint of vascular surgery by Dr. J. Ross Veal, from the standpoint of medicine by Dr. Andrew G. Prandoni, and from the standpoint of pathology by Dr. Oscar B. Hunter, Sr.

Dr. William Dameshek was the guest speaker, November 18. Dr. Dameshek is Professor of Clinical Medicine of Tufts Medical School, Boston. He spoke on the "Treatment of the Leukemias and Lymphomas."

A total of 21,101 doctors, dentists and veterinarians registered, October 15, under the provisions of the doctor-draft. This figure represented 13,968 doctors, 4,989 dentists and 2,144 veterinarians. The total registered for the District of Columbia was 297.

Those required to register on October 15 were doctors, dentists, and veterinarians who were deferred from military service during World War II to complete their medical education and those who had served less than 21 months in the armed forces.

The Metropolitan Washington Tuberculosis Conference was held on November 16 in the Federal Security Building North. Drs. James J. Feffer and Sol Katz presented papers before the Medical Section. Dr. Feffer, Associate in Medicine of George Washington University School of Medicine, discussed "Inhalation Therapy." Dr. Katz, of the Department of Pulmonary Diseases of Gallinger Municipal Hospital, presented a paper on "The Value of the Examination of Bone Marrow in the Diagnosis of Acute Hematogenous Tuberculosis."

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Relations, through which requests for speakers for lay groups are filled.

Date	*Speaker*	*Subject or Title*	*Organization*
October 9	Dr. Ruth E. Stocking	Discussion of film, "Preface to Life"	Parent-Teachers Association of Raymond Elementary School
October 26	Dr. Coursen B. Conklin	How to Prevent the Incidence of Communicable Diseases in the Preschool Child	Group of parents of preschool children at Pierce Hall
November 9	Dr. William D. Claudy	Current Aspects of Civil Defense	Public meeting sponsored by the Alexandria City Medical Society
November 9	Dr. William J. Tobin	The Painful Back from the Industrial and Liability Viewpoint	Washington Claim Men's Association
November 18	Dr. Leonard A. Scheele	Winning a Healthier World	Political Study Club
November 22	Dr. William D. Claudy	Current Aspects of Civil Defense	North Silver Spring Citizens' Association

Dr. Charles P. Cake, Chief of the Tuberculosis Unit of the VA Regional Office, presided at the business meeting.

The Washington Psychiatric Society met in the Medical Society's auditorium, November 18. Professor Harold Lasswell of Yale University Law School was the guest speaker; the title of his address, "The Psychiatry of the Active Political Life." Discussants were Dr. Joseph Goldsen of the Rand Corporation and Dr. Alfred H. Stanton of Chestnut Lodge, Rockville, Md.

Dr. Richard Townley Paton, of New York, addressed members of the **Washington Ophthalmological Society,** November 6, on the subject of "Corneal Surgery." The program followed a dinner meeting at the Kennedy Warren.

The Section on Neurology and Psychiatry of the Medical Society met at Children's Hospital, November 9. Cases of diagnostic interest in pediatric neurology were presented for discussion.

The Medical Society's Annual Golf Tournament and Dinner was held jointly with the **Second Annual Dr. DeVito Memorial Golf Tournament** at the Congressional Country Club, October 12. Dr. Julius J. Radice was Chairman of the Dr. DeVito Tournament Committee. Chairman of the Medical Society's Sports Committee was Dr. H. Franklin Kreuzburg.

Those who attended reported an enjoyable afternoon and evening.

At the meeting of the Medical Council and Clinical Division of **Sibley Memorial Hospital,** September 12, the subject for discussion was "Psychiatric Aspects Involved in a Case of Polysurgery." Dr. Agnes McNutt gave the case report; discussion was led by Drs. O. B. Hunter, Wyrth P. Baker and V. Lambros. A special presentation on the same topic was made by Dr. Frank S. Caprio.

Dr. Brian Blades, Chief Consultant in Thoracic Surgery for the Veterans Administration, has been appointed to the VA's Special Medical Advisory Group by Dr. Paul B. Magnuson, Chief Medical Director.

Chairman of the Advisory Group is Dr. Charles W. Mayo, head of the Mayo Clinic, Rochester, Minn. Four other physicians appointed to the Board were Dr. Osborne A. Brines of Wayne University, Dr. Herbert L. Mantz of the Kansas City Health Department, Dr. Walter O. Klingman of the University of Virginia, and Dr. Donald A. Covalt of the New York University Institute of Rehabilitation and Physical Medicine.

Dr. Philip S. Hench, well known to the Washington profession, shared with two other physicians the **1950 Nobel prize in medicine.** Dr. Hench is head of a Mayo Clinic medical section. The other two physicians were Dr. Edward C. Kendall, Chief of the Biochemistry Laboratory, also of the Mayo Clinic, and Dr. Tadeusz Reichstein, Professor of Chemistry at the University of Basel, Switzerland. The award was made for their work on two hormones, cortisone and ACTH, that relieve rheumatoid arthritis and open a new field of research on other diseases.

The staff of Yater Clinic presented the program for the Annual Postgraduate Day of the Harrisburg Academy of Medicine in Harrisburg, Pa., November 2. **Dr. Herbert M. Giffin** discussed "The Treatment of Solitary Pulmonary Metastases"; **Dr. Vincent T. Young,** "The Value of Routine Sigmoidoscopy"; **Dr. Leslie V. Dill,** "A New Concept of the Application of Forceps in Obstetrics"; and **Dr. Joseph M. Barker,** "The Electrocardiographic Diagnosis of Myocardial Infarction." **Dr. Wallace M. Yater** spoke on "Coronary Artery Disease."

Dr. John Minor was elected President of the American Clinical and Climatological Association during its annual meeting in Stockbridge, Mass., October 17–19.

Dr. Minor is Assistant in Medicine at George Washington University School of Medicine, teaching consultant at Walter Reed Army Hospital, Chief of Medicine at Emergency Hospital, a member of the Deans' Committee for Mount Alto (Veterans) Hospital, and a member of the Committee on Medicine of the Division of Medical Sciences of the National Research Council. Dr. Minor was President of the Medical Society of the District of Columbia in 1948–49.

Dr. Clayton B. Ethridge was a guest speaker before the Section on Medicine at the 100th Annual Session of the Medical Society of the State of Pennsylvania, October 19. The subject of his address was "Diagnosis and Therapy in Various Forms of Coronary Heart Disease."

Dr. Harold Jeghers, Professor of Medicine, Georgetown University School of Medicine, addressed the House Officers' Association at the Boston City Hospital in Boston, Mass., September 19. The title of his lecture was "Interpretation of the Color of the Skin in Health and Disease."

Dr. Donald Stubbs was in Asheville, N. C., October 4, attending the Second Annual Western North Carolina Medical Symposium. Dr. Stubbs, who is Clinical Professor of Anesthesiology of George Washington University School of Medicine, presented a paper on "First Aid in Critical Emergencies."

Dr. Winfred Overholser, Superintendent of St. Elizabeths Hospital, was invited to address the Royal Academy of Medicine of Barcelona, Spain, October 16. Dr. Overholser's lecture, given in French, was entitled, "Considerations on the Present State of American Psychiatry." Later he was made an honorary member of the Academy.

Dr. Overholser went to Europe in September to attend the First International Congress of Psychiatry in Paris.

Dr. Murray M. Copeland, Professor of Oncology of Georgetown University School of Medicine, attended four large scientific gatherings in the East and Middle West during October. He presented papers at two of them: "Bone Diseases with Osteoporotic and Malacic Changes" before the 23rd Annual Graduate Fortnight of the New York Academy of Medicine, which was held at the New York Polyclinic Medical School and Hospital, October 11, and "Participation of the Student in the Tumor Clinic" at the Third Cancer Teaching Conference of the Cancer Coördinators' Meeting in Chicago, October 12–14.

Following the Cancer Conference, Dr. Copeland traveled to Rochester, New York, where he attended the meeting of the Interurban Orthopaedic Club, October 19–21, thence to Boston, Mass., for the 36th Annual Clinical Congress of the American College of Surgeons, October 23–27.

Dr. Custis Lee Hall, President of the United States Chapter of the International College of Surgeons, was in Cleveland, Ohio, October 31–November 3, attending the 15th Annual Assembly of the Chapter. Dr. Hall presided at the banquet, November 2. The guest speaker for the occasion was Dr.

Frank Lahey, of Boston, who spoke on "Some of the Recent Advances in Surgery."

Dr. Hall also presided at the Convocation, Friday evening, when new officers were installed and new Fellows and Associate Fellows were inducted into the College.

Dr. George B. Trible, of Washington, contributed a paper on "Present Conceptions of Non-suppurative Labyrinthitis" before the Eye, Ear, Nose and Throat Section, November 1.

Dr. Ronald A. Cox, Professor of Ophthalmology of George Washington University School of Medicine, spoke on "The Treatment of Acute Ocular Injuries" before the annual meeting of the Seaboard Airline Railroad Surgeons, November 15, in Palm Beach, Fla.

At the George Washington University Alumni luncheon, October 28, held at the Mayflower Hotel, four members of the University faculty who had served 25 years or more were honored. Among them was **Dr. George Nordlinger,** Associate Clinical Professor of Obstetrics and Gynecology.

Dr. Leonard A. Scheele, Surgeon General of USPHS, was one of the national speakers at the 33rd annual meeting of the American Dietetic Association, which was held in Washington, October 16–20. Dr. Scheele discussed "Food for Health" at the National Guard Armory, October 20.

Dr. Margaret Nicholson was the official United States delegate to the Sixth International Congress of Pediatrics which was held in Zurich, Switzerland, July 22–29.

Three members of the District Medical Society have recently been elected to fellowship in the American Academy of Pediatrics. They are: **Drs. Harold Y. Finck, Morris I. Michael, and Ralph Stiller.**

Dr. James Alexander Lyon was elected to the National Executive Committee of the Society of American Legion Founders. Dr. Lyon was a delegate to the Paris caucus in 1918 when the Legion was formed.

Dr. Ralph L. Morrison was named Secretary-Treasurer of a new dental organization, **the International Academy of Oral Dynamics,** which was officially formed at the recent annual meeting of the American Dental Association in Atlantic City, N. J. The Academy will promote the art and science of dentistry through the application of oral dynamics. Dr. Morrison is an Associate member of the District Medical Society.

A picture showing **Dr. I. Phillips Frohman** with his unique collection of shaving mugs appears on page 90 of the October 1950 issue of *GP*. In an article captioned "Mugging for Fun," in the section devoted to "After Hours," an interesting account is given of how Dr. Frohman happened to start his collection of so-called "occupational" shaving mugs and how he has developed his unusual hobby.

Lt. Edwin R. Ballinger, M.C., U.S.A.F., is stationed at the Wright-Patterson Air Field in Dayton, Ohio. He reported for duty, September 17.

Comdr. John L. Conley is at the Naval Base in Norfolk, Va.

Captain Phillip A. Cox, M.C., U.S.A.F., is presently on duty at Walter Reed Army Hospital.

Lt. (s.g.) John C. Murphy, M.C., U.S.N. is at the Naval Hospital in Bethesda, Md.

Lt. (j.g.) Ira W. Pearlman reported for active duty in the Medical Corps of the U. S. Navy, November 1.

MEETINGS

Wednesday, January 10

The Washington Gynecological Society will present the following program:

"Caesarean Section," EDWARD A. SCHUMANN, M.D., F.A.C.S., Chief of Service, Obstetrics and Gynecology, Hospital of the Protestant Episcopal Church, Philadelphia

Wednesday, January 24

The following program will be sponsored by the *District Rheumatism Society:*

"The Diagnosis and Management of the Rheumatic State," EDWARD E. FISCHEL, M.D., Columbia University College of Physicians and Surgeons

A Textbook of Gynecology, 6th ed. Arthur Hale Curtis, M.D., Emeritus Professor and Chairman of the Department of Obstetrics and Gynecology, Northwestern University Medical School; formerly Chief of Gynecological Service, Passavant Memorial Hospital, Chicago; and John William Huffman, M.D., Associate Professor of Obstetrics and Gynecology, Northwestern University Medical School; Attending Gynecologist, Passavant Memorial Hospital, Chicago. Price, $10.00. Pp. 799, with 466 illustrations, chiefly by Tom Jones, including 37 in color. Philadelphia: Saunders, 1950.

This well known and famous textbook of gynecology has been reprinted and brought up to date with many of the newer concepts of treatment. The section on anatomy and embryology is one of the finest parts of the book. For anyone trying to learn the fundamentals of this portion of anatomy, it is invaluable. The same material could only be obtained by recourse to several other texts and even then would not be as well outlined.

There are some parts in this book which seem out of place in a work so widely used as a text by students and as a source of reference by practitioners. The advice given that some cases of fundal carcinoma can be so easily recognized by signs and symptoms, that a diagnostic curettage is not needed, may be true in the authors' hands, but seems a poor way to teach students to do good gynecology. The statement that estrogens have carcinogenic properties in humans is the authors' opinion and has not been backed up by any real proof. Likewise I feel that more emphasis should have been placed on biopsy of cervical lesions, rather than depending on the feel with the bare finger.

Outside of these few variations from the reviewer's own fixed prejudices, the book is a worthwhile addition to the library of anyone interested in gynecology.

J. B. Sheffery, M.D.

Textbook of Endocrinology, edited by Robert H. Williams, M.D., Executive Officer and Professor of Medicine, University of Washington Medical School, Seattle, with the collaboration of: Peter H. Forsham, Harry B. Friedgood, John Eager Howard, Edwin J. Kepler, William Locke, L. Harry Newburgh, Edward C. Reifenstein, Jr., William W. Scott, George Van S. Smith, George W. Thorn, Lawson Wilkins. Price, $10.00. Pp. 793, with 168 illustrations. Philadelphia: Saunders, 1950.

The study of endocrinology has progressed rapidly within the past two decades and the student of the subject has found it difficult to become logically oriented and informed. This difficulty has stemmed from three main causes, the first and foremost being that the subject matter itself is complex and confused, the second being the lack of any one authoritative source of information, and the third being that the texts written were lean on either the experimental or clinical side. Dr. Williams' book is different for he and his collaborators have given the medical student, practitioner, and specialist a text which is up to date and which for the most part stresses the experimental only to bring out more forcefully the practical clinical aspects of endocrine disease.

Dr. Williams' own chapters, "The General Principles of Endocrinology," "The Pituitary," and "The Thyroid," are good although the pituitary section could well include more clinical information. His chapter on "Laboratory, Diagnostic, and Assay Procedures" would be much more interesting from the general reader's viewpoint if he elaborated on the tests more frequently used in clinical endocrinology.

Drs. Kepler and Locke have written a clear, coherent, and concise account of "Chronic Adrenal Hyperfunction." "Adrenal Cortical Insufficiency" is thoroughly and capably covered by Drs. Thorn and Forsham.

Dr. Howard's chapter on the testes is informative and well written, although for the sake of completeness functioning testicular tumors should have been mentioned.

Gynecologic endocrinology remains a morass of experimental data which are difficult to understand and virtually impossible to apply clinically. Dr. Smith does a distinct service by giving his theories along with their clinical application.

"The Pancreas and Diabetes Mellitus" is a section which Drs. Forsham and Thorn have written in a truly enlightening manner. It is neither cumbersome nor unbalanced and amply attests to the authors' pedagogical skill.

Dr. Reifenstein covers "The Diseases of the Parathyroid Glands" in a concise and practical manner. He avoids the controversial problems of parathyroid physiology and delivers an interesting clinical presentation of parathyroid disease.

The subject of endocrine abnormalities of childhood and adolescence, as well as abnormalities of this period which are mistakenly considered to be of endocrine origin, is sufficiently important to warrant a much more complete discussion than the one given by Dr. Wilkins, who is a leading authority on this subject.

Dr. Friedgood's discussion of "The Psychodynamic Aspects of the Endocrinopathies" is as pedantic and confusing as the title sounds.

To include a chapter on obesity was wise for it is often mistakenly considered to be of endocrine origin. Dr. Newburgh covers the matter in an authoritative, comprehensive, and succinct manner.

There has long been a need for an authoritative and modern textbook of endocrinology. Dr. Williams' book is to be recommended. It partially fulfills this need and it surpasses other textbooks written on this subject.

PAUL D. DOOLAN, M.D.

Proctology in General Practice. J. PEERMAN NESSELROD, B. S., M.S., M.Sc. (Med.), M.D., F.A.C.S., F.A.P.S., Associate in Surgery, Northwestern University Medical School; Associate Surgeon, Division of Proctology, Evanston Hospital, Evanston, Illinois; Certified by the Central Certifying Committee in Proctology (Founders' Group) of the American Board of Surgery; Commander (MC), USNR. Price, $6.00. Pp. 276, illustrated with 64 figures. Philadelphia: Saunders, 1950.

This text, as the title implies, is written for the general practitioner. It embraces the limited anorectal field of proctology and accomplishes its purpose most satisfactorily.

Over one third of the text is devoted to Anatomy and Physiology, Diagnostic Procedures and Clinical Proctoscopy. Herein lies a wealth of fundamental information that should be assiduously digested by any physician who wishes to improve his knowledge of this subject. Terminology is constantly being defined and clarified; the anatomical and physiological "why" of symptoms and clinical findings is presented; how (and how not) to conduct an examination is discussed, and, finally, the proctoscopic findings in many disease entities are discussed and illustrated. These sections might be shortened and made less verbose, but in doing so the instructive value of the minute details would be compromised. They should not be read hurriedly.

Preoperative and postoperative care, with a discussion of complications, is given in detail. The author's specific recommendations may seem cumbersome or perhaps too specific in this respect. However, the general practitioner can rest assured that the well-planned care of minor anorectal surgical procedures often spells the difference between a successful result and an unsuccessful outcome.

The chapters on specific disease and disorders are well written. Particular emphasis is placed on obtaining a functional result from surgical treatment.

Dr. Nesselrod indicates that most anorectal disease is the result of anorectal infection. He offers a very clear discussion on this, and he presents logical and sensible evidence to support this thesis.

Dr. Nesselrod is obviously a teacher who has been asked "all the questions" by students, interns, practitioners and patients. He has taken great pains to explain things in detail to patients, practitioners and students. He has dispensed his knowledge freely and with sincerity. The general practitioner and his patient should be indeed grateful for this information.

GARNET W. AULT, M.D.

CORRESPONDENCE

SOMEWHERE IN KOREA, August 29, 1950

SECRETARY, MEDICAL SOCIETY OF D. C.
1718 M STREET, N. W.
WASHINGTON, D. C.

DEAR MR. WIPRUD:

Remembering your old habit of a general correspondence with D. C. doctors during the European war, it occurred to me that a present lull in our usually rushing business might be occupied by a letter to the Pepys of the Society . . . .

I left Ft. Dix in mid-July, in response to sudden orders, was flown across the Pacific with fleeting stops at Honolulu and Wake, to be assigned to this mobile surgical hospital.

It immediately went into action on the Western sector, supporting one of the divisions.

Life over here seems to have two facets. One is the struggle with the country, the climate, and the natives for a successful existence. The other is of course the struggle with the enemy. But you have to lick the first before you can take on the second, and it is no cinch.

It is a ruggedly beautiful country, seen from a distance, but this impression does not hold up on close contact. The lovely green color resolves itself into countless rice paddies occupying every scrap of land except the narrow roads, more rock-bound than the coast of Maine itself. A vehicle cannot leave the road, or it is quite literally sunk. Similarly all the people walk on the roads, there being no place else to walk, so immediately our vehicles have heavy competition for passageway. Women carrying bundles and jars on their heads, babies on their backs, and men carrying pianoboxlike freight on wooden pack frames on their backs constitute a major traffic hazard. The utter carelessness with which human life is regarded in these parts, while consoling to our drivers, is after all a little hard to stomach.

The rice paddies and other growing things are fertilized liberally with human excreta, lending the atmosphere its outstanding characteristic. The blasting, blazing heat, in addition to constituting its own hazard, accentuates this one.

Most countries in which our armies operate have their roads pretty well beaten up by our heavy trucks. Here, the reverse holds true. The roads are not perceptibly changed from when we came here, but the trucks sure are. They are badly beaten.

* * * *

As for the war, we have been extremely busy. Our function is to give surgical treatment to those whose injuries will not permit the long evacuation to the rear. So we work pretty well forward, with Clearing Station. It is mostly abdominal and chest surgery. Never have I seen the insides of so many bellies! The operations are all long—seldom less than three hours. Our blood bank, supplied from the states and Japan, is a crucial factor in many cases. It is not unusual to use 40 pints a night.

We have three teams of surgeons. For sporadic work all three operate; for around the clock operation, one rests while two work. An orthopedic team is extra and is on its own all the time.

All of our surgeons are young, none of them having seen service in the last war. It is an advantage, I think, for were they as old as I, they would not tackle many of the cases they do. And with amazing success.

* * * *

Lt. Colonel ————, M.C., U.S.A.
(Name omitted by request)

REPRINTS RECEIVED

The following reprints have been received, for which due acknowledgment is made:

"Medical Testimony Before the Courts." Samuel M. Becker. Mississippi Valley Medical Journal, September 1949.

"Review of Ten Years' Experience with Transvaginal Roentgen Therapy." Ralph M. Caulk. Radiology, January 1949.

"Some Medical and Roentgenological Aspects of Mass Chest Surveys." Arthur C. Christie. American Journal of Roentgenology and Radium Therapy, February 1949.

"The Diabetic in Industry and His Employer." Louis I. Dublin and Herbert H. Marks. Industrial Medicine and Surgery, June 1950.

"Frontiers of Clinical Pathology." Oscar B. Hunter. Southern Medical Journal, January 1950.

"Progressive Ulceration of the Abdominal Wall—Amoebiasis Cutis." Oscar B. Hunter. Mississippi Valley Medical Journal & Radiologic Review, July 1950.

"Dual Slotted Plates in Fixation of Fractures of the Femoral Shaft. A Report of Eighteen Cases." Leonard T. Peterson and Oscar S. Reeder. Journal of Bone and Joint Surgery, July 1950.

"Aging as a Problem of Nutrition." Edward J. Stieglitz. Nutrition News, October 1949.

"The Present Day Concept of Industrial Medicine." R. Lomax Wells. Virginia Medical Monthly, January 1950.

"Sigmoidovesical Fistula. Diagnosis and Recent Advances in Surgical Treatment." Charles Stanley White and Charles Stanley White, Jr. The Southern Surgeon, October 1950.

"Mesothelioma of the Pleura." R. E. Whitehead. Diseases of the Chest, May 1950.

LEWIS KAIGLER SWEET, A.B., M.D.

(1902–1950)

Dr. Lewis K. Sweet, nationally known pediatrician, and Director of Clinical Research of a newly created unit in the Microbiological Institute of the National Institutes of Health, died unexpectedly, September 24, 1950, at his home, 817 West Broad Street, Falls Church, Virginia.

Born in Brownwood, Texas, on January 25, 1902, Dr. Sweet received his A.B. degree from the University of Texas in 1923. After teaching for a year, he took additional graduate work at Southern Methodist University. He then entered Harvard Medical School, from which he received his medical degree in 1929. Three years of postgraduate training followed in the Children's Hospital in Boston. From 1932 to 1934 he was Assistant in Pediatrics at the Peking Union Medical College, Peking, China. After two years of private practice in San Antonio, Texas, Dr. Sweet joined the staff of the United States Children's Bureau, Department of Labor. In July 1938 he was appointed Chief Medical Officer in Pediatrics at Gallinger Municipal Hospital. This position, along with faculty duties in the Medical Schools of George Washington, Georgetown, and Howard Universities, he held until the time of his appointment to the staff of the National Institutes of Health.

Dr. Sweet's contributions to medical literature included many articles on pediatric problems. He served as one of the contributing editors to Dr. Harry F. Dowling's recently published book on "Acute Bacterial Diseases."

Dr. Sweet was a member of the American Pediatric Society, the Society for Research and Child Development, the American Academy of Pediatrics, the American Public Health Association, the American Medical Association, and the Medical Society of the District of Columbia.

During his twelve years at the Gallinger Municipal Hospital, the number of infants admitted to the Newborn Service more than doubled. Dr. Sweet's unrelenting efforts to provide better care for infants and children was reflected not only in a lowering of mortality in this large group of patients, but resulted in many hidden examples of health and happiness which no statistical record shows. His phenomenal work with premature infants will stand as the most delicate indication of his remarkable organizational and professional ability. Because of his keen interest and vast experience, Dr. Sweet became one of this country's foremost authorities on poliomyelitis and allied diseases affecting the central nervous system. Dr. Sweet shared his inquisitive and scholarly professional life freely among his colleagues. The many residents, interns, students, and nurses who worked with him thought of him as a friend, admired him as a teacher, and respected him as a physician.

LEWIS K. SWEET, M.D.

Surviving are his wife, Mrs. Mary Heath Sweet; a son, John Sweet, aged 12; two brothers, Dr. Horace Sweet, a surgeon in San Antonio, Texas, and B. G. Sweet, of Brownwood, Texas; and two sisters, Miss Mary Sweet, of Denton, Texas; and Mrs. Itasca Perkinson, of Dallas.

John Parks, M.D.

FRANKLIN BURCHE PEDRICK, A.B., M.A., M.D.

(1886–1950)

Dr. Franklin B. Pedrick, a general practitioner in Washington until 1948, when he was forced to retire because of ill health, died, November 7, 1950, at the Veterans Administration Hospital, Oteen, North Carolina, where he had been a patient since his retirement.

Dr. Pedrick, a lifelong resident of the District of Columbia, was born, March 1, 1886, the son of the late John Carder and Fannie Harkness Pedrick. He graduated from Western High School. He received his A.B. degree from Johns Hopkins University in 1909, and his medical degree four years later from New York Homeopathic Medical College. The same year, 1913, he received his Master's degree from Columbia University College of Physicians and Surgeons. Upon completing his studies he interned at Grace Hospital in New Haven, Conn., and was resident physician at the Norwich (Connecticut) State Hospital, 1913–14, and the Ionia (Michigan) State Hospital, 1914–15.

During his entire medical career he resided at 1736 Columbia Road, N.W., where his offices were located. For many years he was on the staff of the National Homeopathic Hospital.

He served as Captain in the Medical Corps of the U. S. Army in World War I, from 1917 to 1919. Attached to the British Army, he served with the 4th London General Hospital staff and with the 137th Field Ambulance and the 13th East Surrey Regiment, B.E.F., France. For 10 months he was a prisoner of war in Germany.

He became an Active member of the Medical Society of the District of Columbia in 1931. He was a Fellow of the American Medical Association, a member of the American Institute of Homeopathy, and a member and Past President of the Washington Homeopathic Society.

Dr. Pedrick was unmarried. His nearest surviving relative is a first cousin, Miss Fannie Harkness, 2716 Wisconsin Avenue, N.W.

Penicillin Prophylaxis—Lichtman and Master

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Costs of Hospitalization—Wiprud and Altman

(*Continued from page 708*)

receives today. Yet the cost of a single illness, it has been indicated here, can often be beyond the capacity of the family to meet. If the present report can help to focus attention on this problem and on the need for extending the insurance coverage, its objectives will have been met.

Hospital Service Agency News

(*Continued from page 709*)

arteries leading to the community hospitals.

The display attracted a great deal of attention in the window of the Rosslyn Gas Company in Alexandria, from which it was transferred to the window of the same company in Arlington.

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